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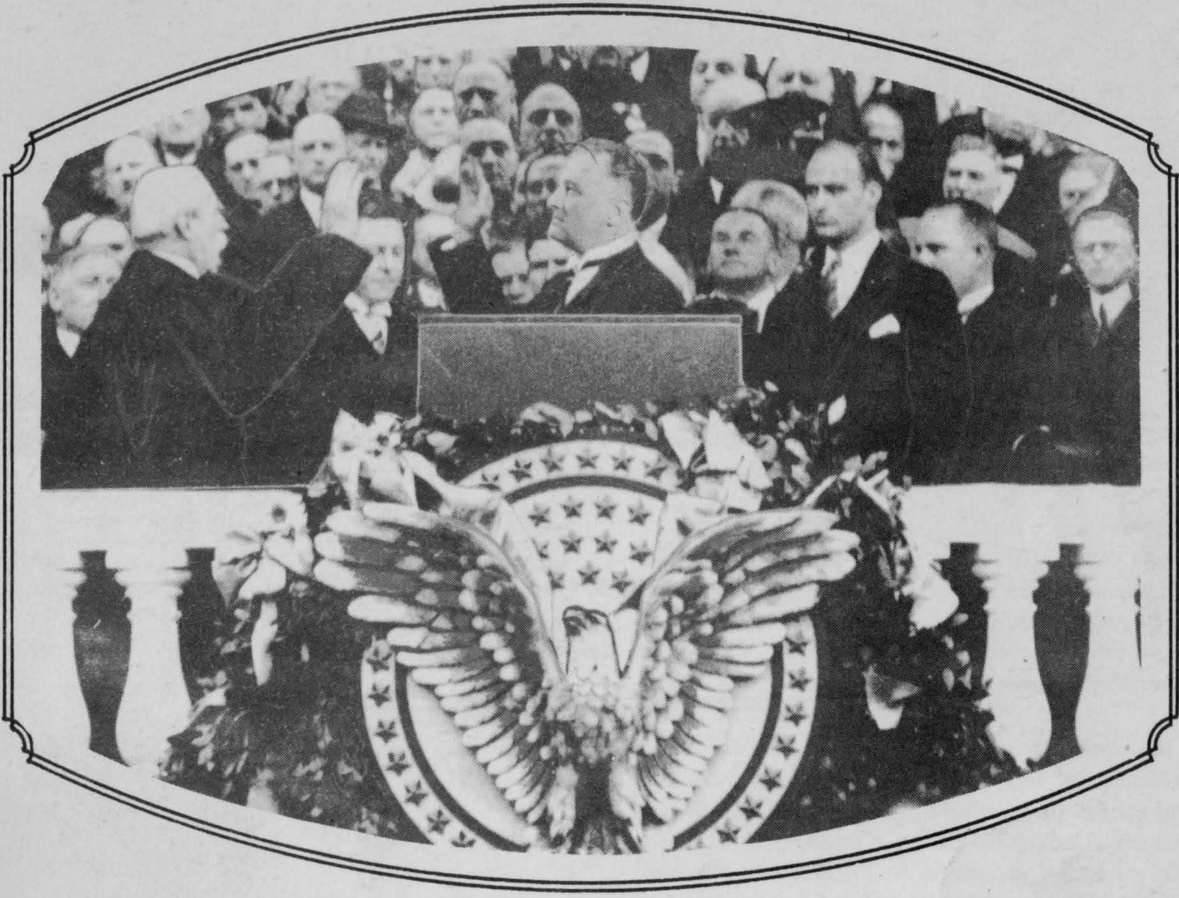
WORK

A Journal of Progress



The Inauguration

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George E. Allen
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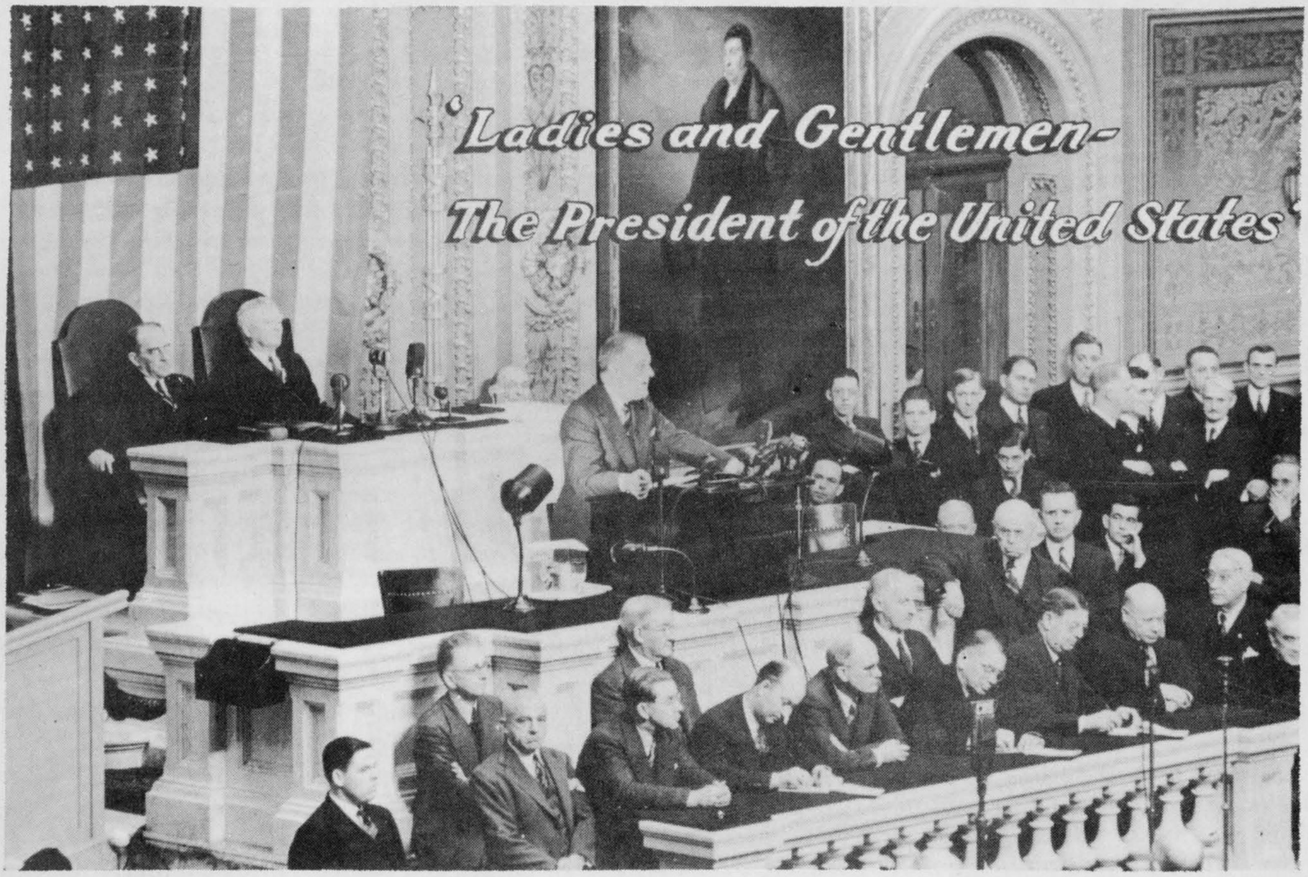
OUR greatest primary task is to put people to work. This is no unsolvable problem if we face it wisely and courageously. It can be accomplished in part by direct recruiting by the Government itself, treating the task as we would treat the emergency of a war, but at the same time, through this employment, accomplishing greatly needed projects to stimulate and reorganize the use of our natural resources.

FRANKLIN D. ROOSEVELT

Inaugural Address, March 4, 1933


'Ladies and Gentlemen—
The President of the United States'

President Roosevelt delivering his message to Congress

THE recovery we sought was not to be merely temporary. It was to be a recovery protected from the causes of previous disasters. . . .

Nor was the recovery we sought merely a purposeless whirring of machinery. It is important, of course, that every man and woman in the country be able to find work, that every factory run, that business as a whole earn profits. But government in a Democratic Nation does not exist solely, or even primarily, for that purpose. . . .

It is not enough that the wheels turn. They must carry us in the direction of a greater satisfaction in life for the average man. The deeper purpose of democratic government is to assist as many of its citizens as possible—especially those who need it most—to improve their conditions of life, to retain all personal liberty which does not adversely affect their neighbors, and to pursue the happiness which comes with security and an opportunity for recreation and culture.

Even with our present recovery we are far from the goal of that deeper purpose. There are far-reaching problems still with us for which democracy must find solutions if it is to consider itself successful. . . .

Another national problem is the intelligent development of our social security system, the broadening of the services it renders, and practical improvement in its operation. In many nations where such laws are in effect, success in meeting the expectations of the community has come through frequent amendments of the original statute.

And, of course, the most far-reaching and the most inclusive problem of all is that of unemployment and the lack of economic balance of which unemployment is at once the result and the symptom. The immediate question of adequate relief for the needy unemployed who are capable of performing useful work, I shall discuss with the Congress during the coming months. The broader task of preventing unemployment is a matter of long-range evolutionary policy. To that we must continue to give our best thought and effort. We cannot assume that immediate industrial and commercial activity which mitigates present pressures justifies the national government at this time in placing the unemployment problem in a filing cabinet of finished business. . . .

Excerpts from President Roosevelt's message to Congress January 6, 1937.

WORK

A Journal of Progress

Published Monthly
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DISTRICT OF COLUMBIA
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George E. Allen,
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January, 1937

Vol. II No. 1

Work, or lose the power to will.
—*John Sullivan Dwight.*

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IT'S YOUR WPA

—working for you and your city, accomplishing notable lasting improvements. Property values are enhanced; men and women are given gainful work. You should inspect these projects and judge their merits for yourself.

Forward with Roosevelt

‘IF I KNOW aught of the spirit and purpose of our Nation, we will not listen to Comfort, Opportunity and Timidity. WE WILL CARRY ON.’

This statement by President Roosevelt in his Second Inaugural Address is a challenge to uncertainty and fear and gives renewed assurance to 130,000,000 American citizens that their leader will continue to "lead the American people forward along the road over which they have chosen to advance."

The unity and consistency of the President's purpose was clearly defined when he added:

"I see a great Nation, upon a great continent, blessed with a great wealth of natural resources. . . . I see a United States which can demonstrate that, under democratic methods of government, national wealth can be translated into a spreading volume of human comforts hitherto unknown—and the lowest standards of living can be raised far above the level of mere subsistence.

"But here is the challenge to our democracy: In this Nation I see tens of millions of its citizens—a substantial part of its whole population—who at this very moment are denied the greater part of what the very lowest standards of today call the necessities of life.

"I see millions of families trying to live on incomes so meager that the pall of family disaster hangs over them day by day. . . .

"It is not in despair that I paint you that picture. I paint it for you in hope—because the Nation, seeing and understanding the injustice in it, proposes to paint it out. We are determined to make every American citizen the subject of his country's interest and concern. The test of our progress is not whether we add more to the abundance of those who have much; it is whether we provide enough for those who have too little."

American citizens can rest assured that the Administration will not fail them in bringing about a new social order and of fulfillment of the President's promise of leadership to a "better life."

Reorganization

LONG after other issues of the moment are forgotten, this year will be long remembered as the year of concentration on the reorganization of the executive branch of the Government.

Numerous reorganization plans have been advanced, including one recommended by President Roosevelt. Congress has a special committee at work on the problem, and undoubtedly will devote much time and thought to the issue during the present session.

Some of the plans advanced outline steps for economy by consolidation of departments, increased efficiency of operation and added incentives to workers in Government service.

Others concentrate on immediate savings by reduction of employees, curtailment of Government activities and general diminution of departmental responsibilities.

All factions are agreed that the executive branch of the Government needs overhauling, so that it may function better under the Constitution.

The ideal of public service is the greatest benefit to the greatest possible number. This can be achieved only through constant improvements designed to increase efficiency with the changing times.

Millions Back To Work

By FRANCES PERKINS
Secretary of Labor

CONCRETE evidence of the betterment in national conditions, since the low point of the depression, is all about us.

More than 6,000,000 men and women who were jobless and panic-stricken in March, 1933, are working again in private employment and drawing their weekly pay regularly. Factory pay rolls alone were $70,000,000 greater weekly in the first quarter of 1936 than they were in the corresponding period in 1933. Outside of private employment some 3,000,000 men and women are engaged in useful work provided or assisted by Government.

Industry is out of the red and investors are again collecting dividends. The national income will soon be double what it was at the low point of the depression. Homes are safeguarded from wholesale foreclosure, savings are protected, investments are safer.

Increased employment and pay rolls, stimulated by the spending of the Federal Government in useful ways, have raised the buying power of wage earners and farmers enabling merchants to sell more goods and factories to get more orders. There has been a revival in production, employment, pay rolls, farm income, construction and in fact every segment of the economic order since President Roosevelt was first inaugurated.

It is estimated that the total number of persons employed in the United States, exclusive of agriculture, Works Progress Administration and Civilian Conservation Corps and other Federal work, was 31,683,000 in September, 1936, representing a gain of 1,400,000 in 12 months. This number is approximately the same as the number of persons who were employed in the United States at the end of 1930. If to these are added those employed in agriculture and on the Federal works program the total will approximate the average employment of 1929.

Secretary Perkins

Employment in the durable goods industries is 13.7 per cent higher than it was a year ago. Employment in the nondurable goods industries is 4 per cent higher than last year and this group of manufacturing industries is back to the level of early 1928. Average weekly earnings in the manufacturing industries as a whole are 4.8 per cent above what they were a year ago.

The increases in employment since last May have been much greater than the normal seasonal movement in several important industry groups, notably in manufacturing and construction. The expansion in employment in all nonagricultural industries from May to September, 1936, was larger than in the comparable period in 1935 and nearly equal to the increase in employment that occurred between May and September, 1929, when total nonagricultural employment reached the predepression peak.

The increase in total manufacturing employment at the rate of over 100,000 per month since last May is particularly striking. It reflects the fact that a large group of manufacturing industries are operating at a level at least as high as in 1929.

According to the index of wage earner employment in manufacturing industries, compiled monthly by the Bureau of Labor Statistics, industries responsible for approximately one-third of the total factory employment in 1929 are today as a group employing a larger number of wage earners than in September 1929, when manufacturing employment as a whole reached the high point of the predepression period. The more important of these industries are: industrial chemicals; smelting and refining of copper, lead and zinc; shipbuilding; aircraft and parts; stoves, ranges and furnaces; plumbers' supplies; wireworks; tin cans and tinware; glass; paper and pulp; radios and phonographs; cotton goods; woolen and worsted goods; rayon yarns; leather tanning; women's clothing; baking; beverages, including beer.

These are important industries still substantially below the 1929 level. These are primarily in the durable goods group of manufacturing industries, engaged in supplying materials for heavy construction. Employment in this group as a whole declined 59 per cent from the high point of 1929 to the low point of the depression. Despite this extraordinary decline, employment even in the durable-goods industries, is within 24 per cent of the September, 1929, level. Noteworthy is the fact that in the last 12 months this group had the highest relative gain in employment, increasing 14 per cent from September, 1935, to September, 1936.

Federal and non-Federal construction projects have helped to prime the pump and to aid industry greatly. These projects have provided 6,475,000 man months of employment at the site of construction between July, 1933, and June, 1936. An additional 4,261,700 man months of labor was created in private industry by orders placed for materials in these useful projects without taking into consideration the labor required in producing and transporting raw materials to the point of manufacture, nor that required in shipping the finished product to the site of construction.

The record shows the substantial and lasting gains in our economic well-being. But they are by no means the only accomplishments of our Government in the successful struggle against the want, misery and despair which gripped the Nation and menaced its foundations in 1933. The Social Security Act, for instance, is is now the law of the land and it is truly a forward-looking measure in the national interest.

It means that wage earners can now look forward to a real measure of security against the hazards with which we became so heart-breakingly familiar during the depression period. It means that we have started something in an effort to level the economic peaks and valleys in the interest of all our people and it means that through cooperation answers can and will be found where human needs are concerned.

The Nation's wage earners have also benefited through other legislation passed with a view to improving conditions. Establishment of the United States Employment Service, another cooperative service with the different States, has resulted in many men and women getting jobs in private industry.

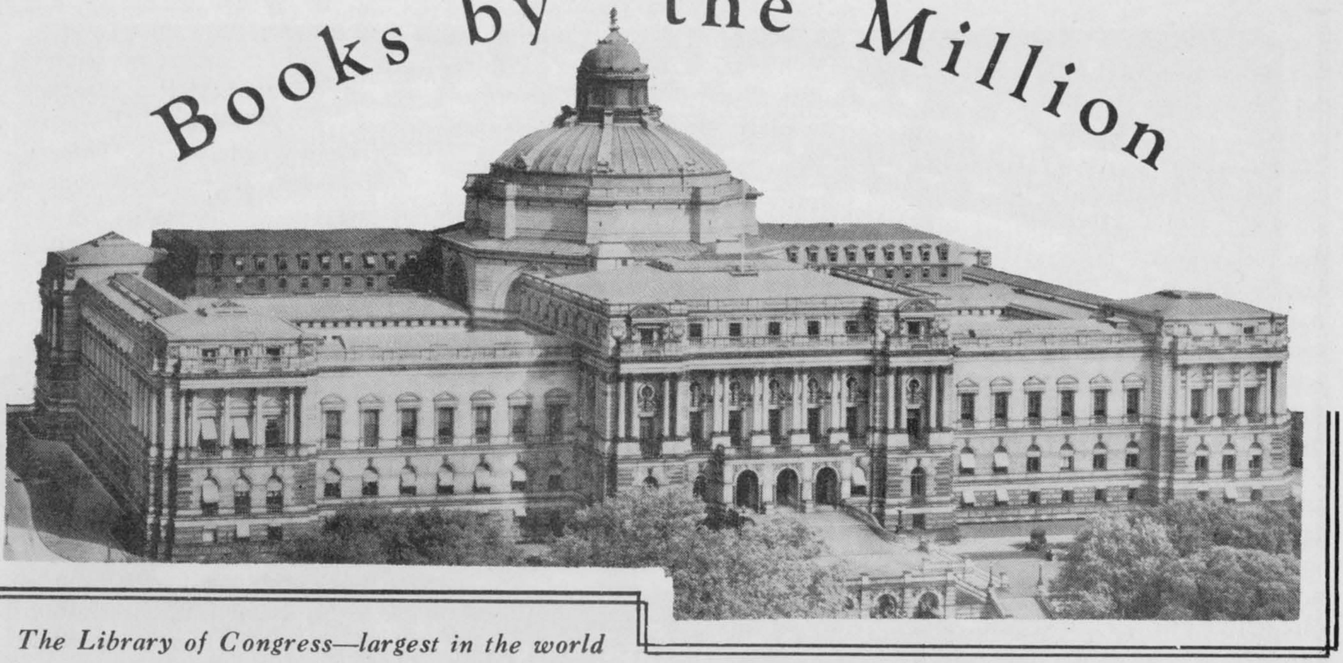
The status of labor has been raised by the Wagner-Connery Labor Disputes Act which defined and strengthened the rights to freedom of association and collective bargaining. The Walsh-Healey Government Contract Act, passed at the last session of the Congress is designed to prevent Government contracts in excess of $10,000 going to sweatshops and is a long-needed step toward putting the Government in its proper place as a model employer.

It must be remembered that under the Act all contracts which do not exceed $10,000 are specifically included. This means that less than 3 per cent of the awards made annually by the Federal Government fall within the confines of the law. No construction contract, regardless of the cost of the job, is covered by the measure. Moreover, only the manufacturer or regular dealer who contracts with the Government is bound by the labor stipulations. Thus a subcontractor and a materialman, who supplies the contractor with the articles, need not comply with the labor standards set forth in the statute. Furthermore, since consideration must be given to local standards in fixing minimum wages, the Act tends to give an advantage to manufacturers in low-wage areas. No machinery is established for setting wages for an industry throughout the country. These must be corrected by amendment and further legislation at the present session.

Certainly the improvement in economic conditions points the way to increased opportunities for work at better wages and under better conditions through a continuation of the policy of improving the status of the great body of wage earners, whether in industry or agriculture, so as to provide the broadest possible base for the development of a sound state.

Let the Nation's wage earners, employers and other groups continue to cooperate in the public interest so that there may be further gains in employment and pay envelopes with increased profits to industry and higher dividends to investors. Then we and the Nation will have the continuing satisfaction of building upon a solid foundation for our prosperity and well-being and that of generations to come.

Books by the Million



The Library of Congress—largest in the world

IN MAN'S pursuit of education and culture, certain cities of the world become great repositories for books and manuscripts. In ancient days Alexandria was famed for its library. To the scholar there is only one London with its British Museum. The Bibliotheque Nationale is one of the attractions which annually draws thousands of students to Paris. And so it is with many cultural centers of Europe—the growth of their libraries and universities has been directly proportionate with the advancement of their government to world prominence.

Washington has become the world's most comprehensive library center in slightly more than a century. Within the nation's capital there are 269 public and semi-public libraries. In all, these libraries contain approximately 13,000,000 volumes, covering virtually every phase of human knowledge. Thousands of scholars from nearly every foreign country travel to Washington annually to use these vast facilities.

The Library of Congress is recognized as the hub of collective knowledge throughout the United States. Originally established for the members of Congress, this library today contains on its shelves more than 5,000,000 books, manuscripts and pamphlets available to the public.

From Europe, the Library of Congress has gathered the world's second largest collection of incunabula—books issued in the first century of printing—as well as thousands of rare volumes laboriously printed centuries ago. Many treasures of the Old World have been reproduced to widen the collection, which is said to contain one of the widest varieties of literary and scholarly works in the world. In size, the famous Leningrad Library, of approximately 4,500,000 volumes, is the nearest approach to the Library of Congress.

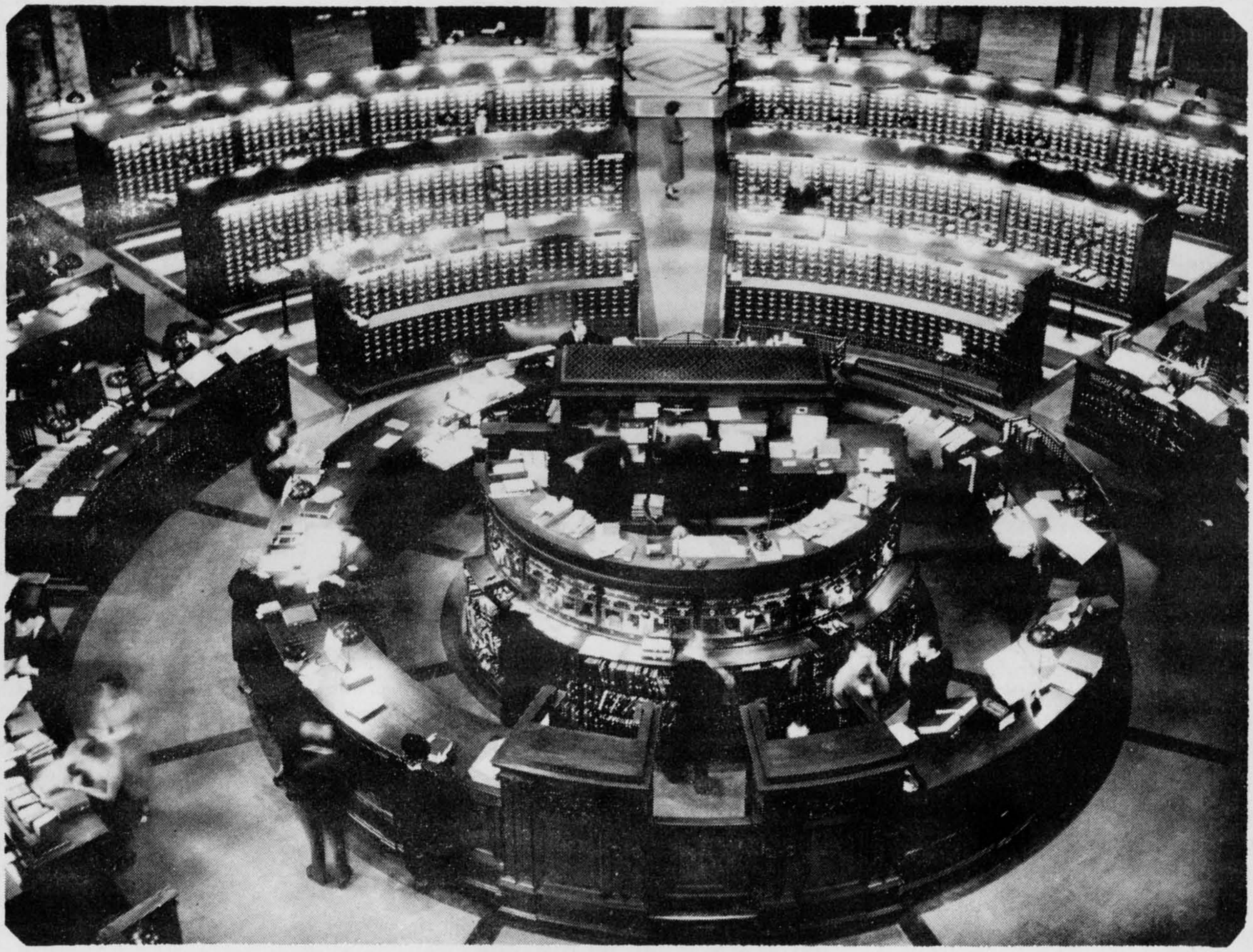
Considered as the world's largest bibliographical repertoire, the Union Catalog of the Library of Congress includes the entire collections of its home library and more than 5,000,000 cards for books located in 500 American libraries. This together with its catalogs of various European libraries makes the Union Catalog the nation's clearing house for books and contributes largely to the success of the inter-library loan system.

An interesting excursion into political science is the study of how libraries are inevitable accompaniments to all well-established governments. Notable collections of tablets, cylinders, papyri, manuscripts and books began with the very outset of government. Evidences of ancient archives, libraries and centers of learning have been uncovered along the Tigris and Euphrates, and in Egypt, Rome and Palestine.

In America our Government has exerted consistent effort and significant sums of money in its quest for complete tabulation of reading matter pertinent to its various departments.

Approximately 80 per cent of all public libraries in the District of Columbia are under Government supervision. Books are located in nearly every government department, the subject matter being mostly relative to the particular interest of the department.

The most complete and impressive of the government libraries is controlled by the War Depart-



The hub, from which 5,000,000 books circulate

ment. Twice as large as Washington's municipal library system, the collection is divided into 12 separate units which total 1,343,202 volumes. The four largest divisions are the Army Medical Library, the Library of the War College, the Library of the Army Industrial College and the Law Library of the Judge Advocate General.

The Army Medical Library is the largest of its type in the world. It secures practically everything printed in the field of medical science, including dental and veterinary medicine. The entire collection includes approximately 400,000 books and more than 50,000 pamphlets. The medical schools of Washington depend largely upon this library to meet their research needs.

With a collection dating back to 1846, the Smithsonian Institution Library has grown to slightly more than 800,000 volumes. Approximately half of the collection is lodged in the Library of Congress, in what is known as the Smithsonian Deposit. Since the Deposit embraces many types of publications and covers numerous subjects, it is distributed among the various divisions of the Library of Congress. Outstanding among its items are the complete proceedings of learned societies and institutions of the world and leading scientific and technical journals and monographs.

The libraries of the House of Representatives and the Senate, which contain 315,000 and 200,000 volumes, respectively, deal for the most part with the proceedings of Congress throughout its entire history. In function and content these two libraries do not conflict with the deposits of the Library of Congress, which also maintains a distributing room in each wing of the Capitol. They are in practice two separate libraries which offer members of both legislative bodies a place for quiet and comfortable study.

Although documentary in nature, the 750,000 pieces of literature housed in the library of the United States Printing Office is of inestimable value since it is the most complete collection of Federal documents in Washington. The material consists of pamphlets, books, individual sheets and maps.

The main purpose of the collection is to provide an historical record of all publications issued by the United States Government. It serves as the basis for the official Catalog of Public Documents of each Congress, and for the monthly Catalog of Public Documents. Through these catalogs most of the publications available are made known to the public. Available for purchase at a nominal fee, they cover every phase of Governmental research and activity.

Sixteen libraries under the supervision of the Department of Interior total 498,794 volumes. It is in these libraries that possibly the widest variety of subjects of all departmental libraries is found. Included among the libraries are those devoted to the interests of the National Park Service, Geological Survey, General Land Office and the Reclamation Bureau.

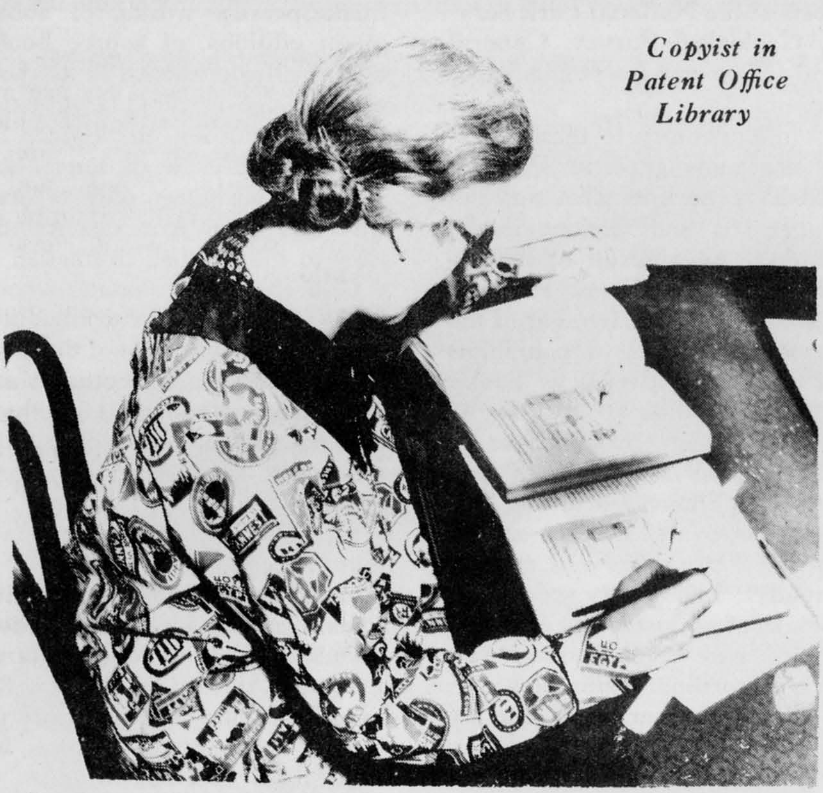
Complementary to these libraries are moving pictures, maps, charts, experimental surveys, photographs and various model exhibits. As a result of the activity of the different research sections of the Department of the Interior, hundreds of pamphlets and circulars, as well as books, are distributed.

Instituted for the purpose of disseminating the writings and history of Shakespeare, the Folger Shakespeare Library serves over 125,000 visitors and readers annually. The library specializes in books of utmost rarity and does not duplicate the collections and work of ordinary libraries. In the library proper there are approximately 95,000 books, 50,000 manuscripts, 100,000 prints and 250,000 playbills. The assemblage of first and early editions of Shakespeare's works, of subsequent editions, of source books, and of allusion books is the largest and most valuable in existence. In addition, the Folger Library includes a museum consisting of costumes, curios, furniture and other pieces contemporary to the English dramatist.

Churches and religious schools in Washington have contributed largely to the richness of the city's library facilities. Important and rare books on religion and education have been collected by more than three score religiously instituted libraries.

Greatest of these collections is that of the Catholic University of America and its affiliated institutions. Catholic University, a pontifical school in which the Cardinals and Archbishops of the Roman Catholic Church in the United States act as trustees, has assembled 326,470 volumes on virtually all subjects of human interest.

The Folger Shakespeare Library—unmatched shrine to The Bard



Copyist in Patent Office Library

Scholars interested in the early history of the Catholic Church find the University fertile in resources. In addition to the Clementine Collection, which contains 10,000 volumes taken from the private library of Pope Clement XI, there are works on theology, church history, hagiography, canon and civil law and rare books of bibliographical interest. Located throughout the city are 34 affiliated libraries of Catholic University, containing a total of 171,223 volumes.

The collections of archives, art books and similar material of Georgetown University represents acquisitions over a long period. The origin of the University may be traced back as far as 1634 to the opening of a schoolhouse in Maryland by the Rev. Andrew White and his companions. Since then a complete library of 107,000 volumes has been collected. There are special books on astronomy, foreign service, law, medicine, history, religion and many valuable papers and autographs,

At Washington Cathedral, under construction for more than a quarter century, the nucleus of a potentially great library has been formed with 36,000 volumes. The collection is strong in biography, church history, lithurgics, missions, patristics, philosophy of religion, sermons, etc.

In a safe are certain rare books, mostly early copies of the Bible, the Book of Common Prayer and Silvestre's Universal Paleography. There is a collection of autographed letters and pictures of American Bishops, and a first edition of the English Prayer Book of 1549.

In recent years curtailed allocations for maintenance have necessitated auxiliary help in several of the District's libraries. In answer to this demand, the Works Progress Administration has placed scores of its workers in local libraries.

At the Library of Congress WPA workers have proved a substantial help to the regular staff. Once unemployed, these men and women are compiling a supplement to Larned's "Literature to American History." Accomplishing a job which library officials have been unable to include in the duties of the regular staff, the WPA workers have been employed mostly in providing collections for titles of books to be included in a special catalog. In another section of the library WPA employes are working on the growing Braille catalog, which will eventually list books available to the blind.

At the Smithsonian Institution, WPA workers, in addition to preserving thousands of pieces of disintegrating rarities, are repairing and cataloging books in the museum's 35 individual collections. The work here is highly complex, since many of the volumes are technical, and are in foreign languages.

WPA workers at Georgetown and Howard Universities are cataloging the specialized collection in each of the libraries. Many of the old manuscripts and papers dealing with the beginnings of this country, contained in the Georgetown library, and hitherto unlisted, are being cataloged by auxiliary workers from the Works Progress Administration.

The Public Library of the District of Columbia, embracing approximately 500,000 volumes, has made up a considerable arrearage through the WPA in repairing children's books and music and in adding gifts to the collection, for the most part books for the recently opened Music Division. Working headquarters have set up at the library annex in the Ford Building where skilled workers are rebinding, mending and cleaning worn volumes from the 11 agencies of the library system. Scrapbooks have been made for the local history division. The picture collection, largely used in class rooms of the schools of the District, has been cleaned and individual pictures remounted when necessary. The WPA is also making a series of posters and informative signs to be placed in reading rooms.

Although the schools and universities of the District of Columbia depend largely on outside facilities for a substantial part of their technical research work, their libraries form a significant part of Washington's literary resources. In addition to Catholic and Georgetown Universities, other universities and their number of volumes are: Howard, 110,808; George Washington, 107,000, and American University, 60,000.

Libraries of private institutions represent a vital part of Washington's library resources. The establishment of national headquarters of many large organizations in Washington during recent years has given rise to specialized libraries.

Noteworthy among these is the Brookings Institution. It possesses a library composed of books, documents and reports covering technical subjects in political science, economics, industry, agriculture and international affairs.

Located near the White House, the institution has gained international importance as a research center and publishing house. It is an institution for visiting scholars from home and abroad. While it confers no degrees to those studying there, it offers an educational opportunity which is considered by educators as being post-graduate in level.

One of the largest libraries devoted to the subject of transportation was organized in 1910 by the Bureau of Railway Economics. It contains 175,000 pieces, which have been collected for the "scientific study of transportation problems."

Washington's two Carnegie Institutions, the Endowment for International Peace and the other institution for general research, have a total of approximately 80,000 books.

The Carnegie Institution of Washington was established in 1904 to "encourage in the broadest and most liberal manner investigation, research, discovery and the application of knowledge to the improvement of mankind."

The Library of the Supreme Council, Thirty-third Degree Masons is probably one of the most complete of its kind in the world. Listing 143,000 books and pamphlets, it was originated in 1915 to bring together all available literature on Freemasonry and related subjects. Subject headings of the library include Americana, archaeology, fine arts, Hebraica, occultism, philosophy, science, etc.

Considered as a group, the composition and nature of libraries in Washington is in a peculiar sense rapidly changing. They are multiplying in number and size along with the increased activities of the Federal Government, and the rapidly growing list of organizations having headquarters in Washington.

These groups represent practically every color, class and creed in America. Many collections of books now designated as "libraries" are small, but it is apparent that they are potentially great. With this inevitable march of activities it grows increasingly evident that Washington is rapidly becoming the intellectual center of the country, as well as the political Capital.

Architectural grandeur within Library of Congress

More Than Counting Noses

Census Bureau Carries Important Research Into Many Fields

By William L. Austin

Director, *Bureau of the Census*

Department of Commerce

THE Bureau of the Census might well be called the first executive agency of the Government, because when the Constitution of the United States was adopted Article I provided for a population census every 10 years as the basis of apportionment of representatives in Congress.

The first population census was taken in 1790. Enumerators in that day mostly made their rounds on horseback or on foot. They endured all kinds of dangers and hardships—fought Indians, swam streams—and were beset by so many difficulties that it took 18 months to count the 4,000,000 population of the country of that day. The last population enumeration, in 1930, was completed in 30 days.

Results of the first census offer striking comparisons with conditions reported today. At that time the western boundary of the United States was the Mississippi River; and a portion of the southern boundary was formed by what is now the northern line of Florida. Western New York was a wilderness, and most of the territory west of the Alleghanies was unsettled and scarcely explored. Detroit was so small and isolated in that early day that it was not considered worthwhile to go to the trouble and expense of enumerating its inhabitants. New York City, which now boasts of being the largest city in the world, possessed only 33,000 inhabitants in 1790. Even so, it was the new Nation's largest city and has kept that status ever since.

No elaborate tabulating machinery was needed for the census of 1790. The returns were slow in coming in, but the numbers were quickly and easily totaled. The final results were published in an octavo volume of 56 pages, copies of which are very rare. There are only two in the possession of the Bureau of the Census, and there is one in the Library of Congress.

Every 10 years since 1790 a population census has been taken, although it was not until 1902 that a permanent Bureau of the Census was created. Prior to that date the Bureau was organized anew every 10 years to conduct the decennial census. It was disbanded after that task was completed. Since creation of the permanent Bureau the scope of the work has been gradually extended until its inquiries have developed into a comprehensive inventory of the population, resources and economic activities of the Nation.

The work of the Bureau is divided among 12 divisions. The Population Division is charged with taking the decennial census of population, the largest individual task of the Bureau. A census of farms is taken every five years by the Division of Agriculture. Agricultural statistics have been gathered since 1840. Inquiries carried on by the Division of Manufactures date back to 1810. Since 1850 the Division of Vital Statistics has compiled information on births and deaths. The Division of Cotton and Oils in-

Speedy tabulation of census returns

augurated periodic cotton reports in 1902. A census of religious bodies is taken every 10 years by the Division of Religious Statistics. This division also conducts searches of the old census records in order to furnish proof-of-age information required by many residents of the Nation.

The Business Division gathers important facts showing the volume of business done, persons employed, wages paid and other vital data covering retail trade, wholesale trade, and other branches of business.

It is the duty of the Geographer to map the Nation into districts so that no overlapping or omissions occur when enumerators make their rounds during a census. Monthly, quarterly, or annual reports of 60 different industries are published by the Division of Special Tabulations.

The taking of a decennial census is a tremendous task. The entire territory of the United States must first be laid off and mapped out in more than 100,000 enumeration districts, each of the right size to be covered carefully and quickly by a single enumerator. Millions of schedules of inquiries must be printed well in advance of the census. An army of 100,000 enumerators must be employed, trained and sent into the field.

When the information has been secured the millions of schedules are forwarded to Washington. The facts are then transferred from the schedules to punch cards. The punched cards are then run through the electrically operated sorting and tabulating machines—machines that almost think.

The uses of Census data are practically limitless. It is impossible to cover all of them in a short article. However, some broad uses can be outlined. Perhaps the most common use of business census data is in planning sales and promotion campaigns.

Information gathered in the agricultural census furnishes valuable data on the changes in acreages of principal crops, and consequent changes in the diet of the American people. It reveals the effects of drought and its relation to the prices of food and clothing. It shows the extent to which people turn to the soil for a livelihood during periods of industrial depression.

Two census projects, financed by WPA funds, are now nearing completion. At St. Louis the Bureau is preparing an alphabetical index, by geographical units and families, of all individuals enumerated in the Census of 1900.

The other WPA-financed project is the Census of Business with headquarters in Philadelphia. The Census of Business was taken at the insistent demand of business men for up-to-date facts on business, gathered on a national scale, yet available by individual towns, cities, counties, States and other areas.

The Bureau of the Census, with all its myriad activities, is known as the largest statistical organization in the world. It is constantly at work, year in and year out, keeping a record of our national position. Its efforts are all bent toward helping the citizens of the country. Complete sets of census publications are supplied to all "depository" libraries in the United States. Citizens are invited to consult them respecting their problems or to direct their inquiries to the Bureau of the Census, Washington, D. C.

CENSUS ODDITIES

The first census, in 1790, enumerating 4,000,000 persons, required 18 months. The 1930 census took only 30 days!

Heavy snows in Northern Minnesota necessitated use of a ski-equipped airplane for gathering business data.

There is one birth in the United States every 14 seconds, one death every 22 seconds, one immigrant every 15 minutes, and one emigrant every 14 1-2 minutes — making a net gain in population of one person every 35 seconds.

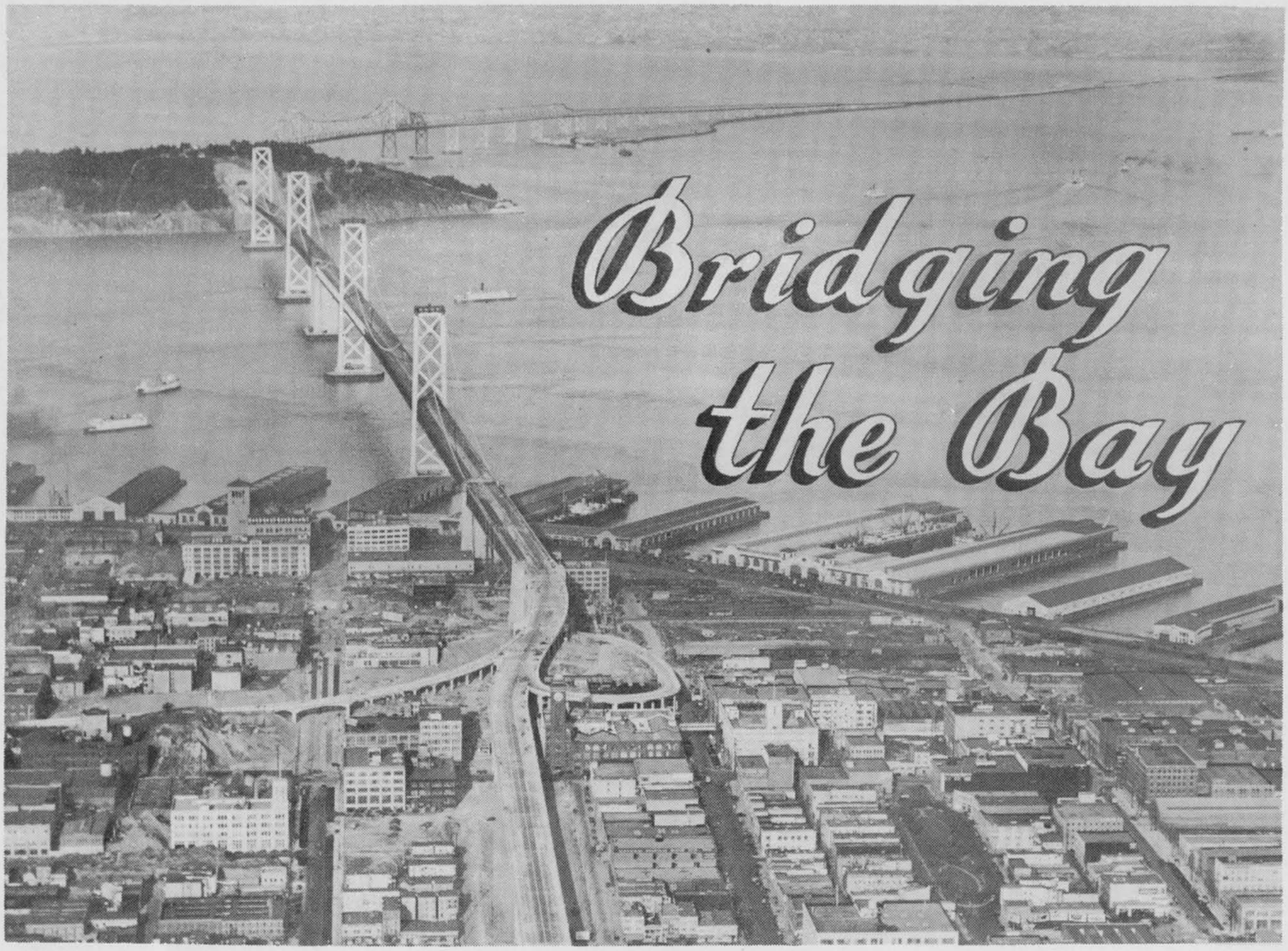
In Texas there is a farm which has been worked continuously since 1540.

This country has 213 different recognized religious sects or denominations.

Some bee keepers let their bees die in winter, claiming it is cheaper to import new stock each spring than feed their swarms during the cold months.

Detroit was so small and isolated at the time of the first census it was not considered worthwhile to enumerate its inhabitants.

Bridging the Bay



By
Charles B. Henderson

Member of the Board, Reconstruction Finance Corporation.

AWAY back in 1868 Leland Stanford, founder of the University that bears his name, had a vision. It was to end the isolation of San Francisco by connecting that great metropolis with her sister city of Oakland on the East shore of San Francisco Bay.

And people called Leland Stanford a visionary, because the only possible connecting link between San Francisco and Oakland would be a bridge spanning San Francisco Bay. Such a structure was entirely beyond the ability of engineering science to erect. That's what they said in 1868.

But on November 12, 1936, President Roosevelt, sitting in his study in the White House at Washington, pressed a button, and 100,000 persons in San Francisco and Oakland witnessed the unfolding of the "impossible"—saw Leland Stanford's dream come true.

The San Francisco-Oakland Bay Bridge was finished.

I enjoyed the signal honor of being present at, and participating in, the opening ceremonies. I said then, and I say now, that this mighty pile of steel and concrete was the joint product of modern engineering prowess and the vision of our Government.

Great and magnificent as this structure is, it can never convey to the men, women and children who cross its decks, the unseen obstacles encountered in its building. These obstacles were touched upon by Charles H. Purcell, California's far-seeing State Highway engineer, who directed construction of the bridge, in his dedication speech. Engineer Purcell said:

"For 85 years San Franciscans dreamed of a great bridge that would bring closer to them the East Bay Empire and the vast and wealthy hinterland which speeded the progress and development of the prosperous cities of Oakland, Berkeley and Alameda.

"Long ago men of brains and money joined with the mad 'Emperor' Norton in visioning a giant structure across their beloved bay.

"It was William Walker, a militant San Francisco newspaper editor, who as early as 1850, proposed the construction of a causeway from his city to Contra Costa County. He had in mind as a precedent the famous 2,000-foot Clay Street wharf, some of whose foundations reached a depth of 40 feet.

"His plan was received with enthusiasm, but nothing came of it. Six years later, Gen. William Tecumseh Sherman of Civil War fame, then a youthful banker in San Francisco, revived the idea.

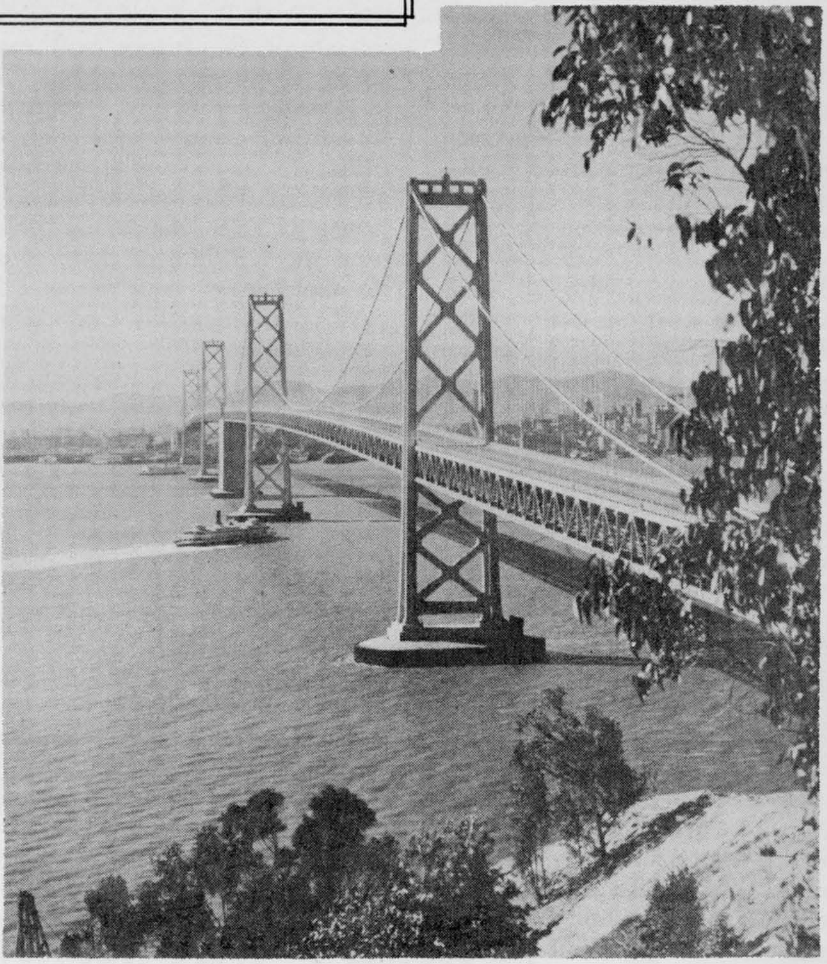
"In 1869 when the continent was spanned by the Central Pacific and Union Pacific railroads, Leland Stanford, later United States Senator from California, joined San Franciscans in urging his railway associates to do something about bridging the bay.

"These bridge proponents were practical men, but even before some of them gave serious thought to the great idea, 'Emperor' Norton, worshipped for his eccentricities by fun-loving San Franciscans, had demanded of the Central Pacific that it build a suspension bridge from San Francisco to his 'summer capital' in Oakland.

"It was not until 1921 that definite plans for a San Francisco-Oakland Bay Bridge began to take form. In that year the San Francisco Motor Car Dealers Association contributed money to defray the cost of an engineering report on the feasibility of building a combined tube and concrete causeway which would connect the City by the Golden Gate with its East Bay neighbors.

"Seven years later the Board of Supervisors of San Francisco had before it 35 proposals for different kinds of bridges and tubes submitted by corporations and individuals. In 1928 a bill was introduced in Congress authorizing San Francisco to construct a bridge across the bay and delegations from San Francisco and the East Bay cities headed by James Rolph, Jr., then mayor of San Francisco, went to Washington to urge passage of the measure.

Beautiful vista of the Bay Bridge



"Objections raised by Army and Navy officials defeated the plan.

"It became apparent that the bridge would have to be built by the State of California and in 1929 the legislature created the California Toll Bridge Authority.

"On July 9, 1933, after Congressional approval of a loan from the Reconstruction Finance Corporation to the State had been obtained, first ground was broken for the bridge.

"On November 12, 1936, the structure was open to automobile and truck traffic.

"The three years and four months intervening were full of intensive and interesting work for all of us who have had the honor to be connected with the construction of this gigantic span."

When the people of California found that private enterprise was unwilling to assume the risk of building the bridge, they enlisted the aid of the Federal and State Governments. The cooperative response of their Governments was wholehearted and beneficial.

The spirit of cooperation so much in evidence in the construction of the San Francisco-Oakland Bay Bridge has also made possible many other splendid projects. There is the Metropolitan Water District Project, assuring Los Angeles and its neighboring cities of an adequate water supply for years to come. And we have the Grand Coulee Dam in the State of Washington, and the Fort Peck Dam in the State of

Montana, both providing flood control, power and irrigation. Still another great project, made possible through Government cooperation, is the Bonneville Dam, on the Columbia River in Oregon, which likewise provides adequate flood control and opens up a new area to be served by river navigation.

These projects, with an estimated total cost of over $800,000,000, offer legitimate fields for Government aid in financing. Such projects are financed by the Federal and State Governments on the theory that there is a public benefit and a public need. Definite schedules for repayment are provided. They demonstrate how the powers of Government can accelerate by many years developments that give new opportunity for growth in the community and in the nation. They demonstrate that Government can be just as efficient in that cooperation as private enterprise itself.

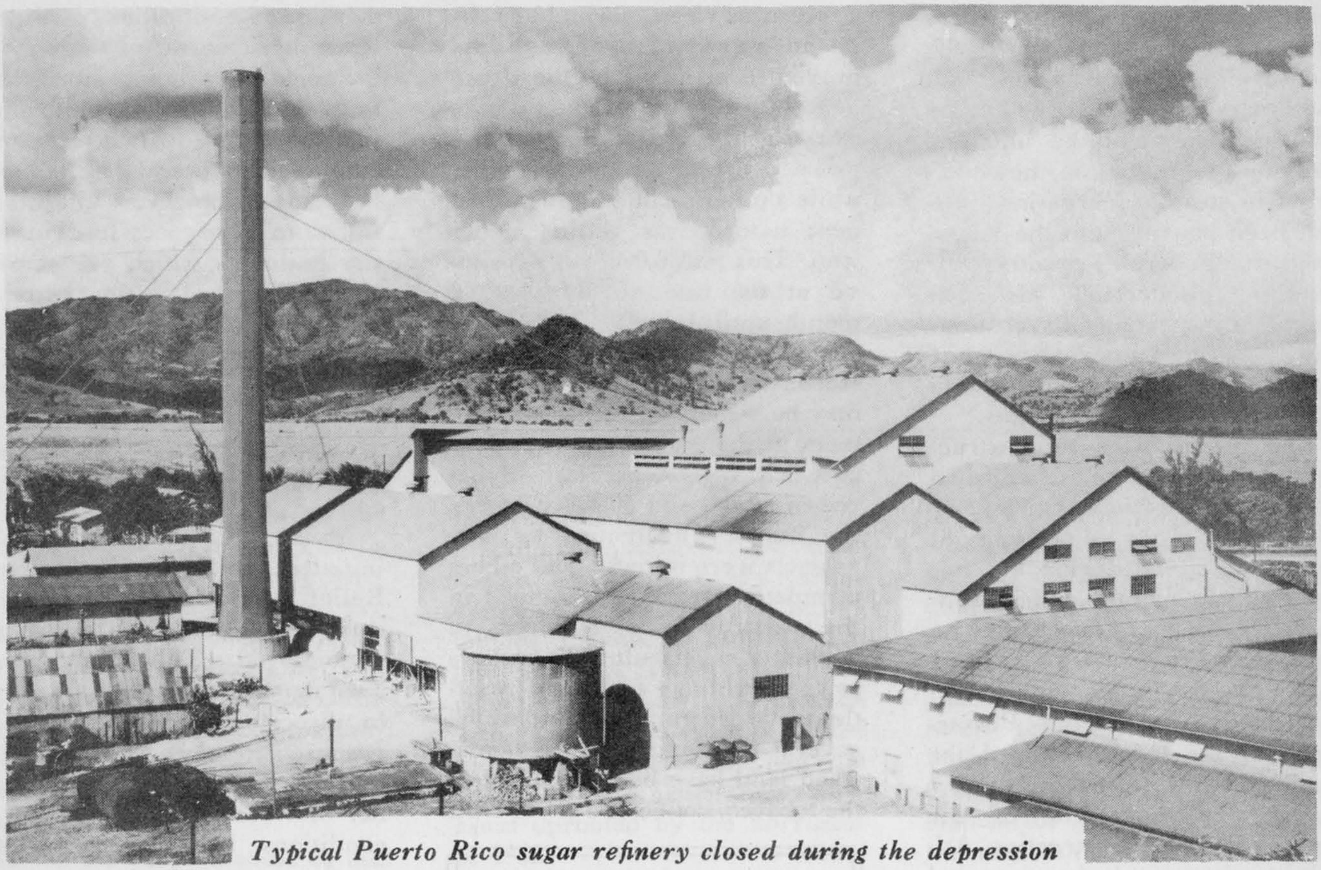
Men of little or no vision have counted each dollar which the Federal Government has lent to each state or community and have suggested that this State or that community has received more than its share of help. The historian of the future will make quite a different appraisal. He will look not to the amounts of money allocated to projects in the different states, but to the works of lasting value which the money erected, and what these works and the building of them meant to the Nation as a whole. He will compliment his Federal and local Governments for the foresight and imagination which they displayed in devising truly beneficial and useful projects—projects which have not only given productive work during the depression to idle hands and idle factories throughout the Nation, but have also left enduring monuments of economic value for future generations.

Wealth is the result of labor used, not of wages saved while labor goes unused. Unemployment is a waste of our most precious national resources: our human resources. These projects stand as great monuments of the cooperative effort of the State and of the Nation to prevent the waste of human resources, and to create wealth of enduring value.

The building of these great projects has provided work not only to the people of the West when private avenues of employment were closed, but it has provided work in the mills and in factories in nearly every State of the Union. The San Francisco bridge, a public benefit, now provides an artery of trade and commerce which will be of value when the great depression of the 1930's will long be forgotten.

Those whose engineering skill and science have created the San Francisco Bridge, and the men far above the water who have done the work, deserve the highest praise. The Bridge is not only a monument to the genius of Charles H. Purcell, the engineer in charge, it is a symbol of the unlimited capacity of modern men, working together through Government, to unify the physical world around them. It is a symbol as challenging to those of us who are not scientists as the China Clipper that flies above it. Twelve minutes from San Francisco to Oakland—18 hours from Oakland to Honolulu.

Traffic flows over the great span



Typical Puerto Rico sugar refinery closed during the depression

Trouble in the Tropics

Puerto Rico has higher standard of living as New Deal combats depression's aftermath

By
Ernest Gruening
PRRA *Administrator*

PUERTO RICO not only shared the depression of continental United States, but other factors peculiar to the Island greatly intensified it.

There was first the long standing depression in sugar, beginning in the middle twenties and affecting the Island's most important commercial crop.

There was the devastating hurricane of 1928, perhaps the worst in the Island's history, which caused $100,000,000 worth of damage and completely destroyed the coffee agriculture; and this was followed by an almost equally severe hurricane in 1932—two island-wide calamities unprecedented in their intensity and the shortness of the interval which separated them.

There was the sugar reduction brought about by the Jones-Costigan Act which deprived some 25,000 wage earners of work.

There was the steady increase in population of some 40,000 persons a year, which now brings the total of Puerto Rico's population up to 1,765,000. This constituted the greatest density of population in the Western Hemisphere, excepting the Island of Barbados. It constitutes a density of 520 per square mile—in a country that has to live off the land. This contrasts with a density of population of 45 per square mile all over the United States with its many industries and with 15 to the square mile in a purely agricultural State such as Nebraska. But much Puerto Rican land is unfit for cultivation. On arable land the concentration is actually 1,500 per square mile. It is not an exaggeration to say that the situation in Puerto Rico before the Administration initiated its program was desperate.

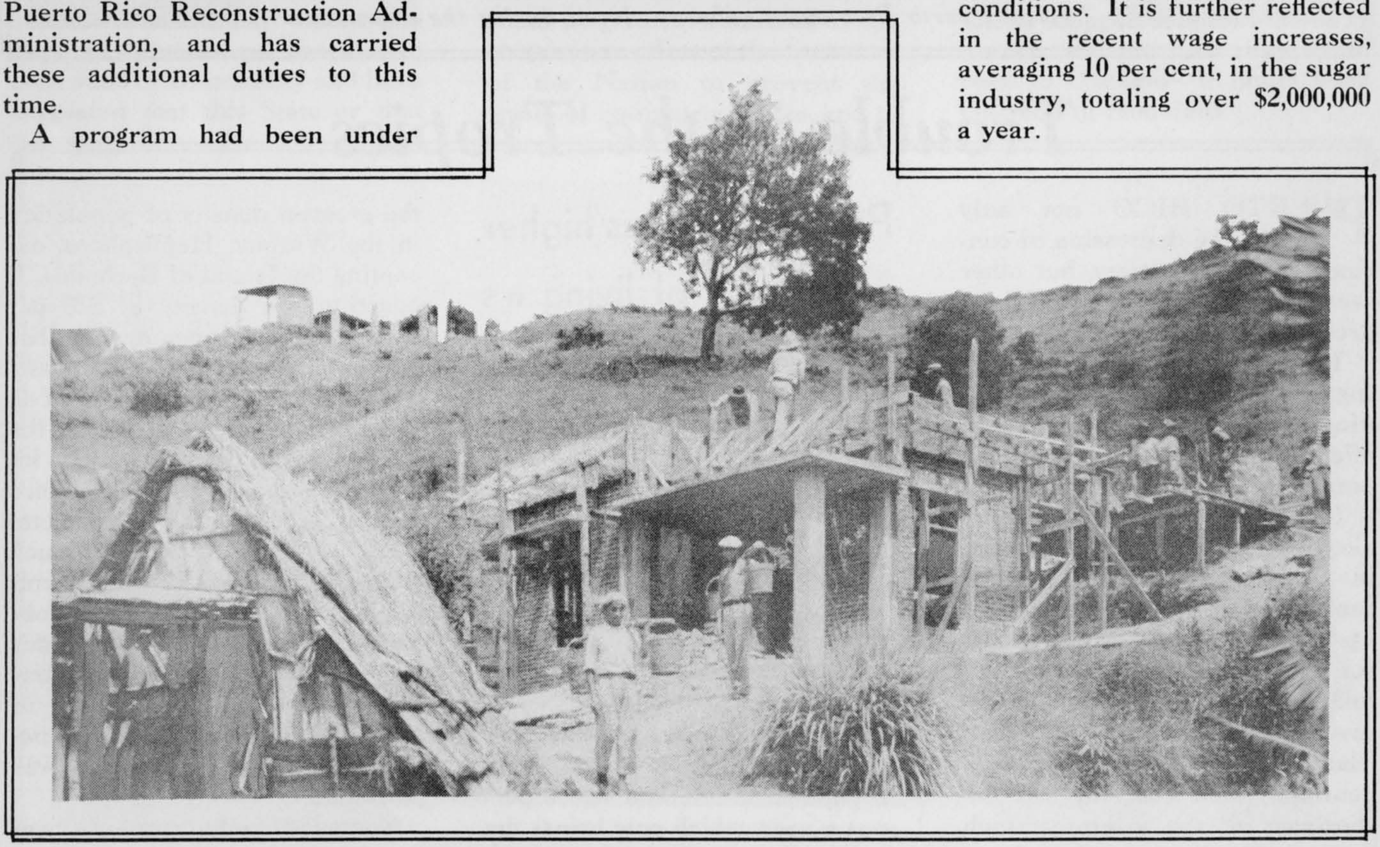
Occupied with pressing national problems, the Administration was forced to defer its program for Puerto Rico. It was not until nearly two and a half years after the inauguration of the Roosevelt Administration that the program of reconstruction for Puerto Rico could be initiated. Previous to that time, however, relief in steadily increasing sums had been pouring into the Island from the Federal Treasury. (It should be understood also that Puerto Rico retains its customs and duties and internal revenue taxes, and pays neither Federal income nor inheritance taxes.)

The Puerto Rico Reconstruction Administration, established by executive order on May 28, 1935, secured its allocations of some $35,000,000 during the following three months and in September, 1935, began to organize its projects in Puerto Rico. The author, director of the Division of Territories and Island Possessions of the Department of the Interior, was given the further post of administrator of the Puerto Rico Reconstruction Administration, and has carried these additional duties to this time.

A program had been under process of development for over a year previous, formulated by Island representatives, and approved in principle by the President. Of the sum originally allocated, $9,000,000 had immediately to be diverted to straight relief while a program of a more permanent nature was getting under way. This $9,000,000 was expended at the rate of $1,000,000 a month until June 30, 1936. The achievement of the Puerto Rico Reconstruction Administration may be signalized in the employment at the end of the first year of work, in October last, of between 50,000 and 60,000 workers, the number fluctuating as new projects were initiated and others completed. It has shown itself in the construction of hundreds of houses for agricultural workers as the beginning of a land resettlement program under which several thousand acres of homestead land have been acquired in the tobacco, coffee and citrus fruit regions, representing three out of the four diversifications of Puerto Rican agriculture.

Puerto Rico being an agricultural country, the Administration's program deals largely with land utilization and resettlement. It includes, however, allocations for slum clearance, for University buildings which are nearing completion, for vocational schools and rural dispensaries, and extensive power development and rural electrification which will utilize the Island's abundant natural water resources and obviate the importation of fuel at high cost.

At the time the program was initiated, the Federal Emergency Relief Administration stated that some 350,000 Puerto Ricans were unemployed. This situation has been markedly improved not only by direct employment under the reconstruction program but by the absorption of a considerable number of workers through bettered conditions. It is further reflected in the recent wage increases, averaging 10 per cent, in the sugar industry, totaling over $2,000,000 a year.



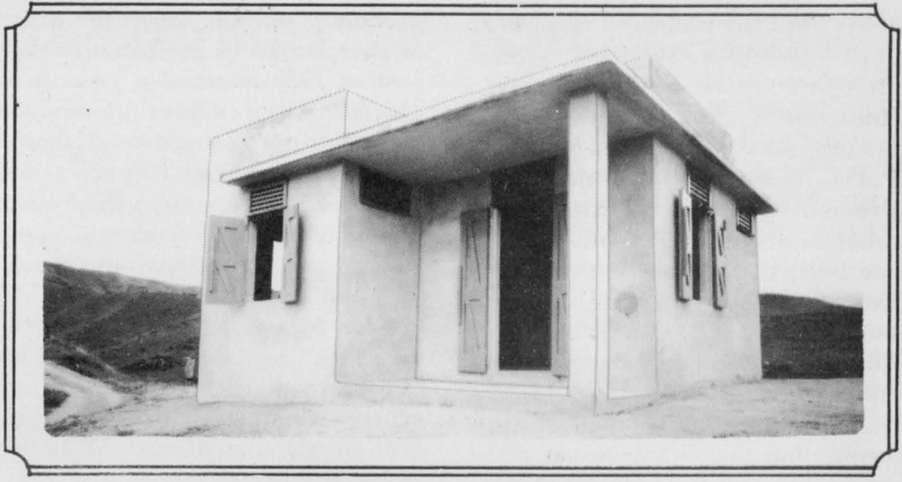
Primitive native habitation and partly constructed hurricane-proof dwelling

The Puerto Rico Reconstruction Administration's program was directed essentially to helping the laborers, and the small farmers, most of whom were ruined; but the business community has received a considerable share of the resulting improvement in economic conditions.

The Puerto Rico Reconstruction Administration aims at something more permanent than the result to be secured by temporary work relief projects. The direct benefits are, of course, felt in Puerto Rico, but they are indirectly beneficial to the entire nation, to whatever extent Puerto Rico becomes more nearly self-sustaining economically, to say nothing of the exchange of its staples for commodities of continental origin. Puerto Rico is the eighth largest market for continental United States, being exceeded in this hemisphere only by Canada and Hawaii.

Given the desperateness of the situation at the time the Puerto Rico Reconstruction Administration began its work, and the growing impatience of its people at their steadily aggravated economic plight, speed was essential above all else. The organization had to start from scratch in September, 1935. Even office space was not available. The distance from the mainland, the application of Federal Government regulations in a community unused to them, the need of organizing rapidly, presented difficult problems. On the first of January, 1936, the Puerto Rico Reconstruction Administration had, however, erected its quarters which now house some 1,000 employees, the great majority of whom were formerly unemployed.

A further instance of the complexity of the problem, the need of combining the elements of immediate re-employment with something of a more permanent nature may be glimpsed from one particular section of the program, that of rehabilitation in the coffee region. Puerto Rico's coffee agriculture, covering the mountainous regions in the Western half of the Island, had been ruined by the hurricane of 1928. The young coffee trees replanted immediately thereafter had not begun to bear when they were again uprooted by the hurricane of 1932.



This home will weather hurricanes

It was necessary at one and the same time to furnish relief for the farmers who were "down and out," to furnish employment which they could not supply to the thousands of agricultural workers in the coffee region and to provide for something of greater permanence than the help given to both of them. These three objectives were achieved in the first year's program in the coffee region, which provided labor and fertilizer for the coffee farmers.

The complexity of the program may be judged from the fact that before the land could be transferred, clearances had to be secured from all the creditors. Often the creditors would not agree. This required long negotiations and repeated appraisals.

As a result of this program, the coffee farmers were materially helped, some 10,000 laborers were given steady employment and have in prospect the owning of three-acre homesteads on which to grow subsistence crops. Title will pass to the home owners at the end of a 30-year period of annual installment. A similar program is also followed in the tobacco and citrus fruit regions. In addition to this, several large tracts have been acquired on which the homesteaders grow both subsistence crops and vegetables for export, and farm the tobacco cash crop cooperatively.

In the sugar phase of the agricultural program, the PRRA recently completed the purchase of Lafayette Central, a property owned and profitably operated for 85 years by three generations of a single French family. New ownership immediately was vested in a series of industrial and agricultural cooperatives with provisions for ultimate member-worker ownership.

In working out the tobacco program, it was possible for the PRRA to acquire by purchase a tract of more than 4,000 acres from the American Suppliers, Inc., an absentee corporation, comprising some of the finest tobacco lands in the Island. These lands are being divided for homesteading and will contine in the production of tobacco as well as of vegetables for local consumption and export, and subsistence crops. By this process vast tracts of land in seven municipalities which, prior to the rapid development of the tobacco industry which followed American Occupation, were in local ownership will again be acquired and worked by Island-owners.

As in the coffee section, tobacco farmers are being aided by laborers, supplied by the PRRA, the farmers in turn making arrangements for the sale of small portions of their farms to be included in the vast homesteading undertaking.

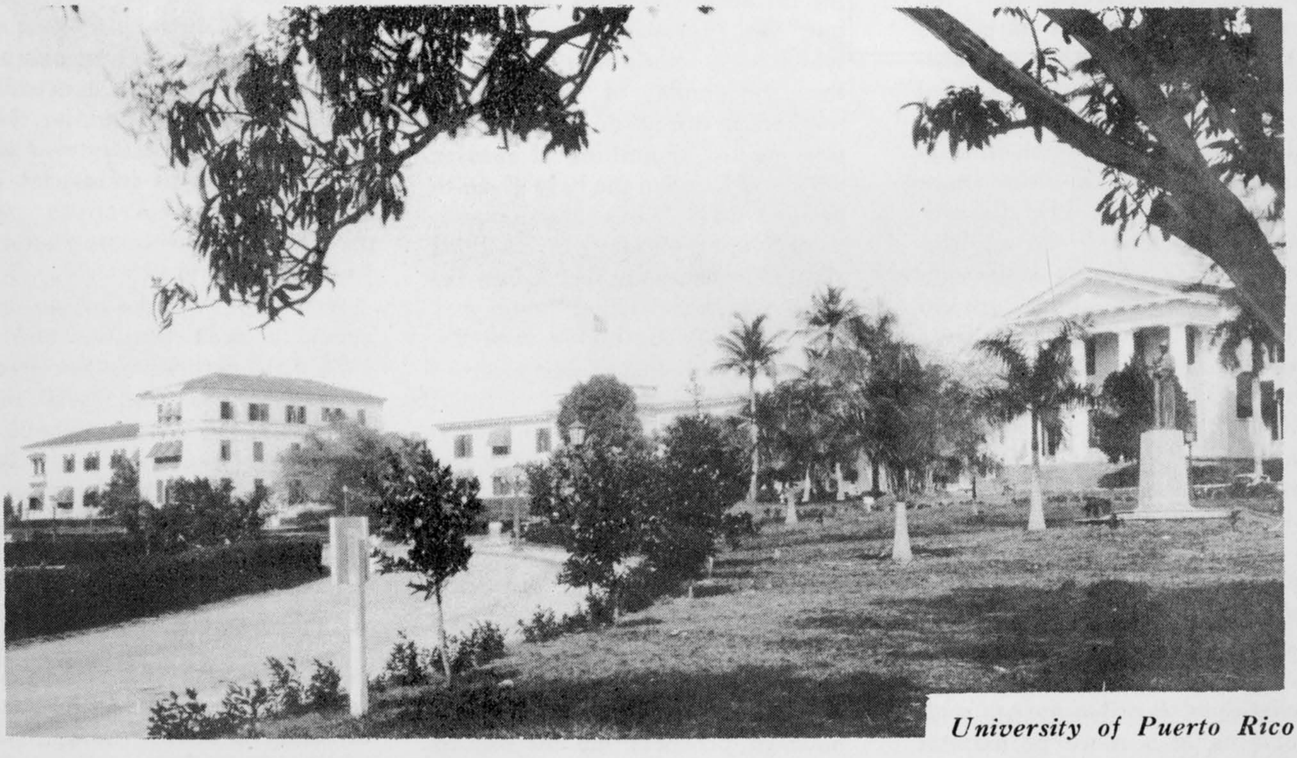
Out of a total island area of more than 2,000,000 acres, it is estimated that fully 500,000 acres, or 25 per cent, is suitable only for the growing of timber. At present the island is largely denuded. The program for forestation, reforestation and prevention of soil erosion has progressed rapidly. Approximately 20,000 acres of land have been purchased or optioned, adequate seed beds established and planting on National and Insular forests has provided not only beneficial labor but laid the foundation for a future forest of great value.

Some of the Spanish cedar trees planted in the Luquillo forest in 1935 attained a growth of 12 feet within a year. Commercial cuttings of hardwood should be possible in from 30 to 35 years, while in the meantime the forests will be of great economic value in insuring streamflow and checking soil erosion. Restoration of island forests, well begun during the first year, was extended to approximately 10 per cent of the 20,000 acres area which it is hoped ultimately may come within the Government program. Of equal importance is the stimulation of interest in the planting of some 300,000 acres which can best be done under private ownership.

Along with the rural rehabilitation program has been planning for slum clearance and the development of low-cost housing. Secretary Ickes, visiting Puerto Rico early in 1936, described island slums as: "The worst I have ever seen."

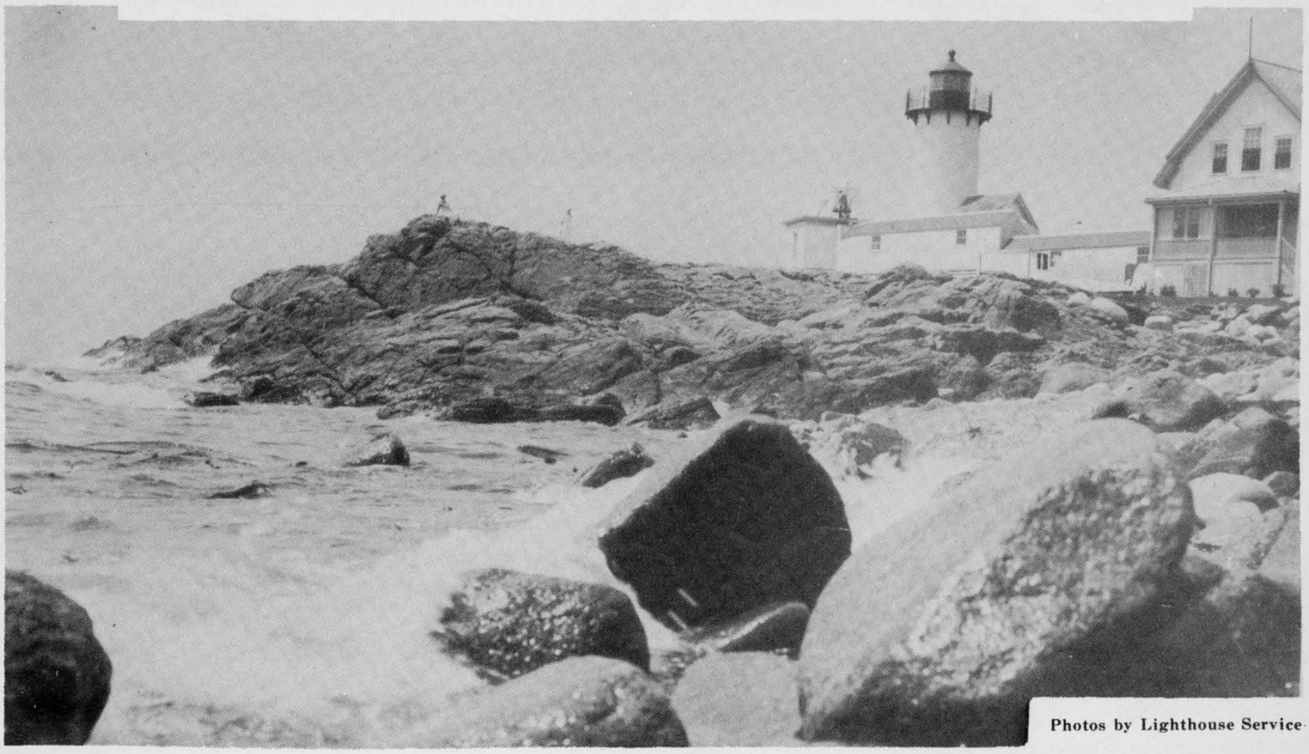
The housing division of the Public Works Administration had been at work on plans for low cost housing in Puerto Rico for over a year. Unfortunately, in September, 1935, just as it was preparing to construct, its allocation of $2,000,000 for the purpose was rescinded by Presidential order. The PRRA, however, came to its rescue with a loan of $775,000 which permitted it to carry out some of the projects it had been planning, in the cities of San Juan and Caguas. In addition, low cost housing has been begun as part of the PRRA regular program near the San Juan water front, in the suburb of Hato Rey, and in the city of Ponce.

In a little more than a year, the program has been fully launched. The PRRA organization is functioning with increasing efficiency. The future and extent of rehabilitation depend upon the sums allocated to it by Congress. It is fair to state, however, that in a year and a half, the PRRA has "saved the situation," as far as Puerto Rico is concerned, to use an expression current on the island.



University of Puerto Rico

The Light That Must Not Fail



Photos by Lighthouse Service

An 80-mile gale was lashing the rocky coast of Maine to phosphorescent fury on the afternoon of Sept. 15, 1931. The thermometer had dropped to well below zero, but inside the keeper's quarters at Great Duck Island lighthouse it was warm and cheery.

The keeper and his two assistants were drinking coffee in front of a roaring fire, and probably pitying "the poor sailor on a night like this."

The chief had the next watch, and as the shadows lengthened into twilight he put down his cup and climbed the lofty tower to light his lamps.

What he saw brought him down three steps at a time. He seized a lantern, shouted, "Come on, boys," and ran down the shore to where the Portland fishing schooner *Rita A. Viator* was going to pieces on jagged rocks not far out.

Realizing the futility of attempting to launch a boat in mountainous breakers, the lighthouse men ran around to the lee side of the island and put out in a dory.

It was a back-breaking, palm-blistering task—and a perilous one, but after almost superhuman effort the dory was brought up to the stricken schooner's side.

It was immediately apparent that any attempt to contact the vessel in such seas would result in the dory being smashed to kindling wood against the schooner's wallowing sides.

After shouting encouragement and instructions to the half-frozen fishermen, the lighthouse keeper and his men shipped oars and negotiated the hazardous return to the lee of the island.

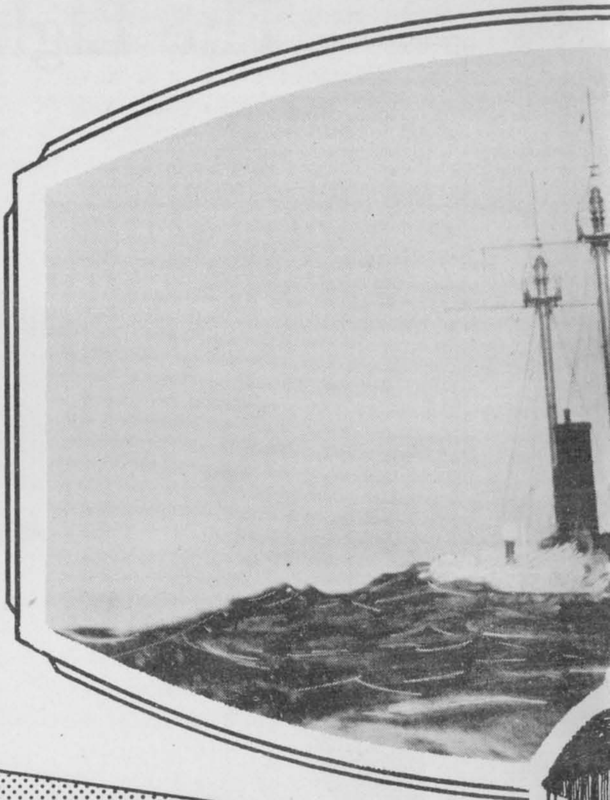
Walking back to the scene of the wreck, they saw three of the schooner's lifeboats smashed to splinters as the exhausted crew attempted to get them off the davits.

Finally one boat was launched. The crew of ten piled in, and shoved away to temporary safety. Making no attempt to use oars in seas that would have torn them from their tired hands, the fishermen kept the lifeboat head-on to the swell by paying out on a line attached to the rapidly disintegrating schooner.

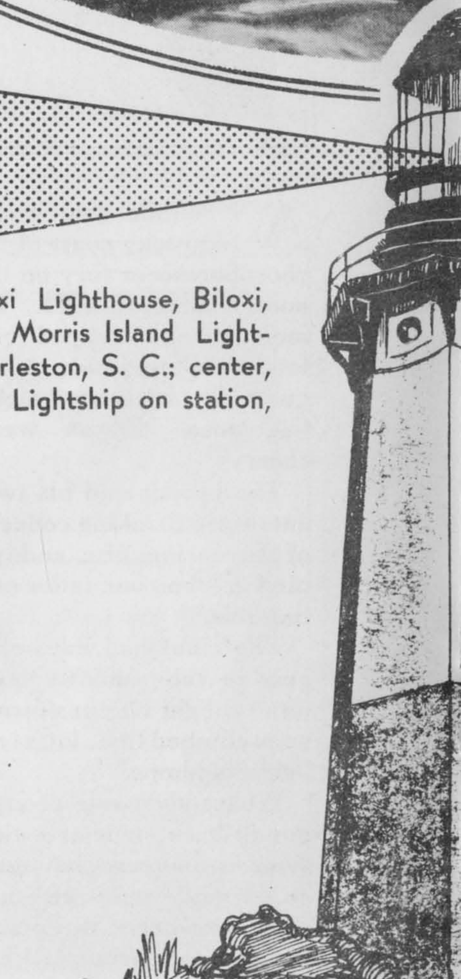
The boat drifted slowly toward the shore, where breakers threw white spray high over treacherous rocks. The lighthouse men waded out in the icy sea, waist-deep on perilous footing, and waited.

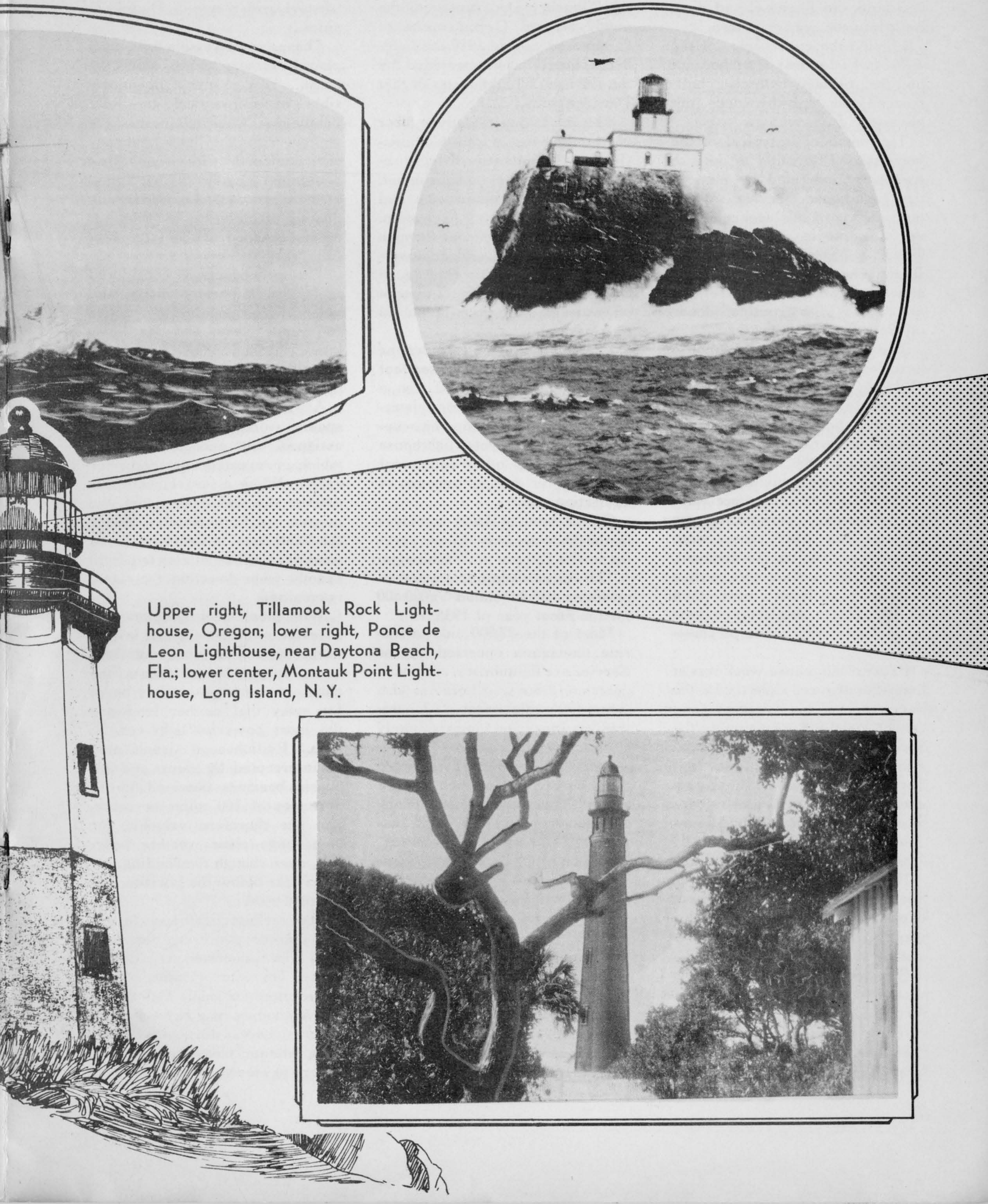
When the boat was a few yards offshore, a huge comber lifted it high in the air and smashed it to pieces on the rocks. Its crew was hurled among other rocks, where a similar fate seemer certain.

Working like madmen, the lighthouse crew charged into the breakers. The keeper seized a man by the collar of his mackinaw, dragging him to safety. His



Upper left, Biloxi Lighthouse, Biloxi, Miss.; lower left, Morris Island Lighthouse, near Charleston, S. C.; center, New Nantucket Lightship on station, Massachusetts.





Upper right, Tillamook Rock Lighthouse, Oregon; lower right, Ponce de Leon Lighthouse, near Daytona Beach, Fla.; lower center, Montauk Point Lighthouse, Long Island, N. Y.

assistants did likewise, and dove back into the sea for more.

Finally, the entire crew of the *Rita A. Viator* was stretched out on the beach — battered, half-frozen and half-drowned, but alive.

This incident is typical of the heroism and devotion to duty so frequently exhibited by men of the Lighthouse Service. While the function of this department is not to compete with the Coast Guard in spectacular rescues of shipwrecked mariners, the long annals of the lighthouse service are replete with "routine" deeds of bravery and daring.

The United States Lighthouse Service is one of the oldest of the Federal agencies, the work of erecting and maintaining lights for navigation having been provided for at the first session of Congress in 1789.

Prior to the organization of the Federal Government, there were 12 lighthouses operated by the colonies. In 1789 these were turned over to the Government, forming the nucleus of a system that now includes more than 27,000 aids to navigation, along more than 40,000 miles of coastline.

Federal lighthouse work was at first administered directly by the Secretary of the Treasury, and early documents pertaining to the Service bear the signatures of Alexander Hamilton, the first Superintendent of Lighthouse, and of George Washington, Thomas Jefferson, John Adams, James Madison and other early Presidents.

Later, when the duties of the Secretary of the Treasury were expanded, lighthouse supervision was carried out by one of his assistants.

Subsequently a lighthouse board was established, composed of Army and Navy officers, and civilian scientists.

In 1903 the Lighthouse Establishment was transferred from the Treasury Department to the newly-created Department of Commerce, and in 1910 the lighthouse board was superseded by the Bureau of Lighthouses of that Department.

The chief administrative officer of the Service is the Commissioner of Lighthouses, who is responsible for the establishment, construction, maintenance and operation of aids to navigation. This work is carried out through the administrative and engineering divisions of the Bureau in Washington, and by the 17 district offices extending from Honolulu to Alaska.

Each district office is under the supervision of a Superintendent of Lighthouses, assisted by a small technical and administrative force. Each division has supply and buoy depots, lighthouse tenders and all other equipment necessary for the maintenance of navigation aids.

Of the total of 5,046 employes in the Service, only 42 are serving in the Bureau at Washington.

The Bureau administers appropriations which totaled $9,000,000 for the fiscal year of 1936.

Most of the 27,000 aids to marine navigation operated by the Service are lighthouses, automatic lights and buoys. There are also about 120 radiobeacons, 32 lightship stations, and approximately 1,500 fog signals.

The earlier lightships were more correctly described as light boats. They were small boats, decked over, with a light displayed from a mast or tower. They had no crews, but were serviced daily by a lighthouse service employe.

Later larger vessels were designed and built especially as lightships, first of wood with no other propelling power than sails. Iron and steel eventually came into use for the construction of hulls, and steam propulsion was introduced.

Present day lightships are built of steel, with steam or Diesel engines.

These sturdy vessels have been placed at many points along the coast, where it would be impossible or impractical to build lighthouses. Their tall masts serve as towers for the lights, and they are equipped with signalling equipment similar to that found at shore stations. They are really floating lighthouses, as they remain anchored at the same spot for a year or more at a time.

The radiobeacon is considered the most important single development in lighthouse practice in recent years, and the lighthouse service has been a leader in recognizing its value and extending its use.

A radiobeacon broadcasts no spoken words, but sends out an assigned dot and dash signal, which is repeated over and over again. When a vessel hears this definite dot and dash signal, the master can immediately identify the lighthouse or lightship that is sending, and he can also tell from exactly what direction the signal is coming.

With these facts the captain of a vessel, while at sea and within range of two or more radiobeacons, can plot his position on the chart, even though he may be so far away that neither land nor the most powerful light can be seen. Radiobeacon signals may be intercepted by ships, and accurate bearings obtained up to distances of 100 miles or more, and are therefore valuable for long range clear weather bearings, even though the sending station is far below the horizon and cannot be seen.

The earliest lighthouses were tall masonry towers, but now steel and concrete are usually used. On the Pacific Coast, where there are many high bluffs, the lighthouses may be very short towers, whereas the generally low lying Atlantic Coast requires tall towers to elevate the light.

An important part in the history of lighthouses is the development of illuminants and illuminating apparatus. While the earliest lighthouses known guided ships merely by means of open fires of wood at their tops, all early American lighthouses—the first was Boston Light, built in 1716 — had some form of lantern, and lamps in which whale oil was used.

At first the lamps were merely set inside a lantern made of panes of glass. Then the number of lamps was increased, and a polished reflector placed behind each lamp.

The first really powerful light, for lighthouse purposes, was not produced until the discoveries of the French engineer, Fresnel, resulted in the designing and construction of lenses in echelon.

These glass prisms collect and concentrate a very high percentage of the light emitted by the lamp, and direct it out along a useful horizontal beam. Some modern lighthouses have a lens large enough for several men to stand inside, and the prism principle has been so far advanced that a tower can now flash a 1,000,000-candlepower beam from an electric globe slightly larger than the average home reading lamp.

Electricity is now used in many lighthouses, but oil and vapor lamps are still in use.

Lighthouses along the coasts are given various characteristics. The lights may burn steadily or they may flash. Some flash at frequent intervals, some with a longer time between flashes. This makes it easier for mariners to identify the light, and thus to be more certain where they are.

The coloring of lighthouses varies, some of them having black and white stripes, others being spirally banded, some painted white, some painted black, or red. This also is for the purpose of identification.

The fog signal is an important function of the lighthouse. During storms and fogs, light keepers must operate this signal, which emits powerful blasts, produced by compressed air. To sound these signals many stations are equipped with electrical generators or air compressing plants operated in some instances by internal combustion engines.

Thousands of buoys have been placed in American waters by the lighthouse service to supplement lighthouses and lightships. These are the floating markers visible from vessels entering or leaving a harbor.

Many buoys have bells, or whistles operated by the swell of the sea.

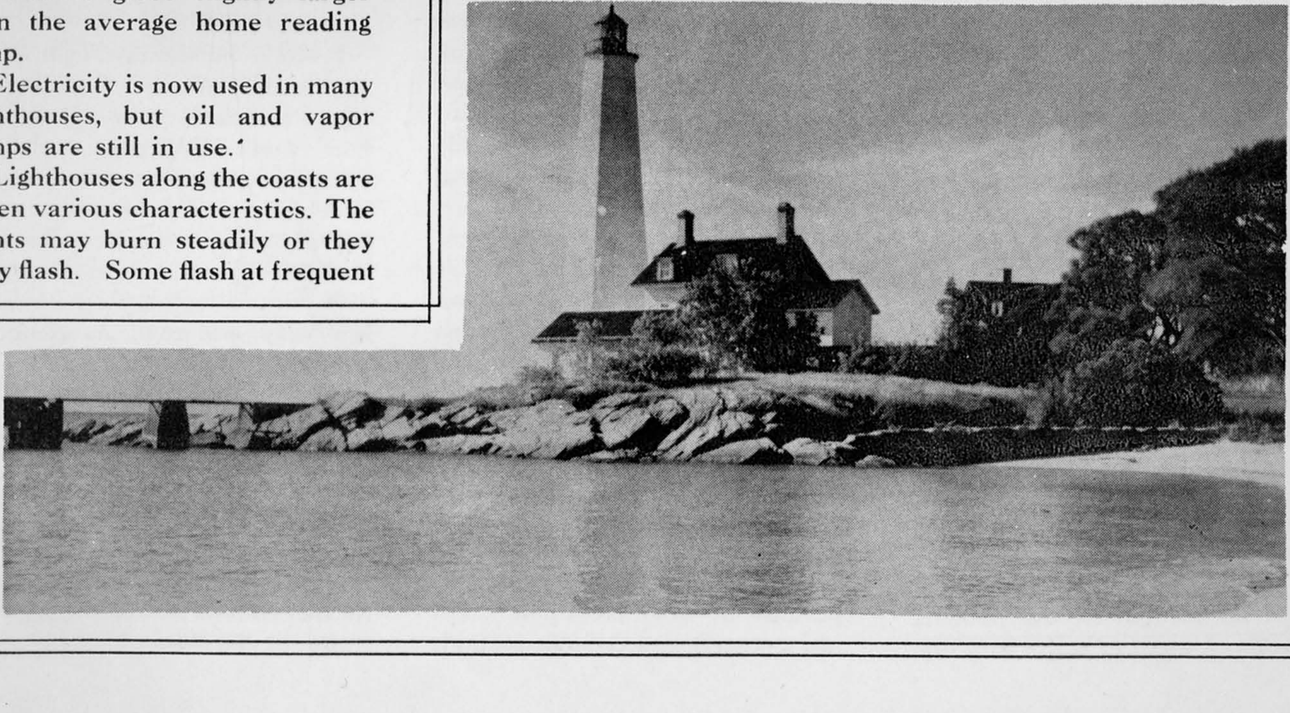
Gas is stored in large containers in the underwater portion of the buoy, permitting the light to burn without attention for several months.

Electrically lighted buoys are also being introduced, the current being supplied by a dry cell in the base of the buoy.

Within the last three years some 2,000 navigation aids have been added to the lighthouse service's gigantic system, and in this expansion work relief funds sponsored by the Roosevelt Administration played an important part.

A PWA allotment of approximately $5,600,000 enabled the service to construct a half dozen or more new lighthouses, repair dozens of others, build several lightships, tenders, buoy depots, quarters for employes, etc.

If the aids that the service maintains for men who go down to the sea in ships should suddenly cease to operate, chaos would result. Commerce would be brought to a standstill, and the coasts, rivers and lakes of the land would be littered with millions of tons of wrecked shipping and the bodies of thousands of mariners.



Security Pensions Start

By G R Parker

Acting Chief,
Field Service
Social Security Board

THE Social Security Act is a forward - looking, businesslike program to provide certain benefits where they are most urgently needed and to distribute as equitably as possible the cost of providing them.

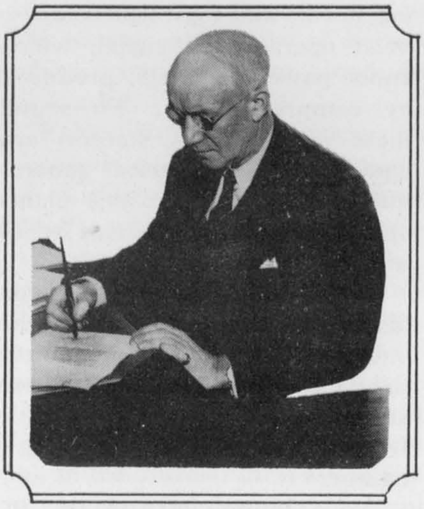
It is intended to offer safeguards against the insecurity of modern life in one program through the medium of the Federal Government alone and in the others through cooperative action by the Federal and State governments.

Without attempting to enumerate all the causes of economic dependency, it will be necessary only to mention old age, physical handicaps, including blindness, a poor start in life, as in the case of poverty-reared children, and that by-product of the machine age—enforced idleness.

It is desirable to analyze the act as a whole and to examine the means of accomplishing the desired results.

The old-age benefits program is a major provision of the act. It is designed to forestall the poverty of old age, a common economic ailment. It is based on the theory that the Federal Government should provide a regular income for workers in their old age, through a universal and systematic plan following insurance and actuarial principles, the benefits taking the form of a life annuity.

This phase of the act is administered solely by the Federal Government for certain obvious reasons. Not only do people move from State to State in the course of a lifetime, but the program comprises a complete cycle, the working life of the individual. In certain other phases of the act, such as unemployment, cause and effect cover fairly short periods, and the resulting experience gained under different State laws may prove helpful. But where the life earnings of the worker are involved and determine his retirement income, a Nationwide and uniform system is essential.



G. R. Parker

The law places no restriction on the freedom of the individual to come or go. He may choose his own employment whenever and wherever he will so far as the Social Security Act is concerned. It is only necessary to make certain that the Federal Government has a complete record of his wages from industrial and commercial employment, so that his benefits may represent the full amount due him.

The benefits ultimately received are based on the industrial and commercial wages of all workers after 1936 and prior to the time they reach age 65. These earnings may be interrupted by periods of unemployment. The law prescribes a definite formula for determining benefits. These range from a minimum life annuity of \$10 a month to a maximum of \$85.

To become eligible a worker must meet certain minimum requirements. After December 31, 1936, and prior to his sixty-fifth birthday he must have worked in an employment, not specifically exempted in the act for at least one day in each of five separate calendar years—not necessarily consecutive years — and must have earned at least \$2,000 in wages. He need not retire from active work on his sixty-fifth birthday, but he will not receive monthly payments until he does retire from regular employment covered by the old-age benefits program.

If a worker does not qualify for regular monthly benefits, he will, when he becomes 65 years of age, receive a lump-sum payment amounting to 3½ per cent of his total wages as defined for benefit purposes. If he dies prior to his sixty-fifth birthday his estate will be paid 3½ per cent of such wages in a lump sum. For example, if a man has earned a total of \$1,000 after December 31, 1936, and prior to his sixty-fifth birthday, his lump-sum payment would amount to \$35.

Even if he should begin drawing benefits after 65, but died before the total benefits he received had reached 3½ per cent of his covered wages, his estate would receive the difference between the amount of the benefits paid him and 3½ per cent of his wages.

A person embraced within the law may not elect to avoid its benefits nor can a person covered by the law determine not to enjoy its benefits.

Workers engaged in certain occupations are specifically exempted. These include: agricultural labor; domestic service in a private home; casual labor not in the course of the employer's trade or business; service performed as an officer or member of the crew of a vessel documented under the laws of the United States or of any foreign country; service performed in the employ of the United States or States Governments or political subdivisions thereof, or their instrumentalities, or service performed in the employ of a charitable, nonprofit making, religious, scientific, literary, or educational institution, or one operated for the prevention of crulety to children or animals.

By the end of 1936 more than 22,000,000 had applied for social security account numbers in order that a record of their wages might be maintained by the Social Security Board.

It is important to remember that old-age benefits payments are made to every qualified person and there is no question of the need of the individual involved. The beneficiaries receive them as a right regardless of their wealth or poverty.

Unemployment among those able and willing to work is no new phenomenon. It is to afford some measure of relief to this group that a part of the act provides for Federal cooperation with State unemployment compensation programs.

The Social Security Act has two titles which relate to unemployment compensation, one a tax levied on employers of eight or more and the other an authorization of Federal grants to States for paying the costs of administering the State law. The Federal tax is levied and collected, regardless of whether a State has an unemployment compensation law, but in a State with such a law approved by the Social Security Board, employers are allowed certain credit against the tax for amounts which they have contributed to a State unemployment compensation fund. This credit may amount to as much as 90 per cent of the Federal tax.

State contributions required are very generally based on employer pay rolls but some times include employee-contributions.

Unemployment compensation contributions which a State collects are paid into an unemployment trust fund in the Federal Treasury and not, as is sometimes erroneously stated, into the general funds of the Government.

While State laws so far passed differ in detail, as a rule, they follow the principle that benefits paid an unemployed worker shall bear a definite relationship to his employment record; that is, the longer he has worked the longer he will be entitled to benefits. They generally provide that seasonal employment is not to be counted.

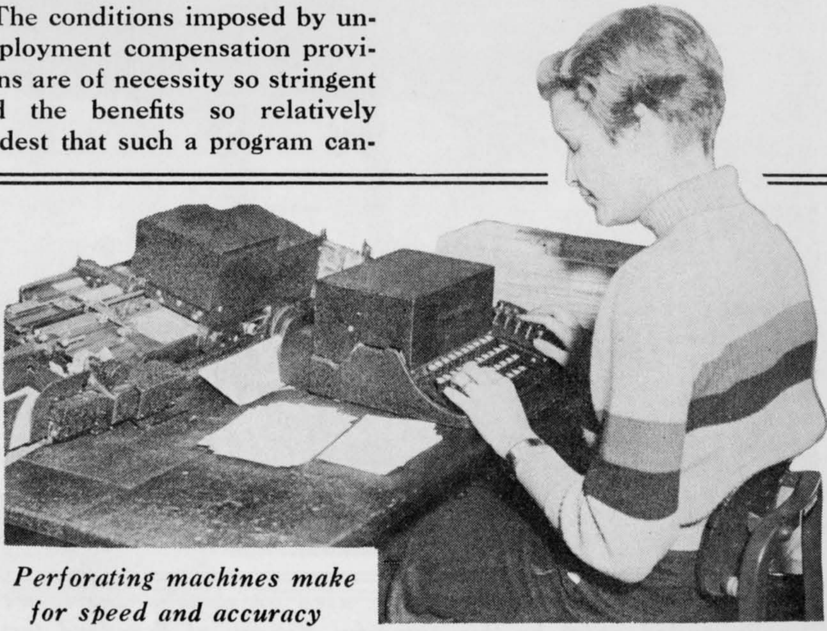
A period of two years must elapse between the first day that contributions become payable before any payment is made and a waiting period of two to four weeks is required of each unemployed worker before he is qualified for benefits. The amount the worker receives is commonly fixed at 50 per cent of his prior wage (with $15 a week as the maximum benefit) and is payable only for a limited period, say about 15 weeks.

The conditions imposed by unemployment compensation provisions are of necessity so stringent and the benefits so relatively modest that such a program cannot well be accused of providing an incentive to voluntary idleness.

To sum up the provisions of the act administered by the Social Security Board, individual cases of distress, among the needy aged, the blind, and dependent children, receive direct financial aid from their States with the help of Federal funds. Workers are protected against complete dependency when they are unemployed. Finally, a Nationwide plan for retirement income is in progress.

The Social Security Act is not perfect. Future years may show it as merely a first faltering step in the direction of greater economic security.

Experience will dictate change and betterment. But that it has become an integral part of our present and future system is scarcely to be doubted. The extent to which it achieves justice to all concerned and the success it meets in attaining its objectives will depend largely on cooperative public support. Unreasoning condemnation and attempts at sabotage are less vicious than they are stupid. Our common interest calls for constructive support of the existing program until a better one is worked out.



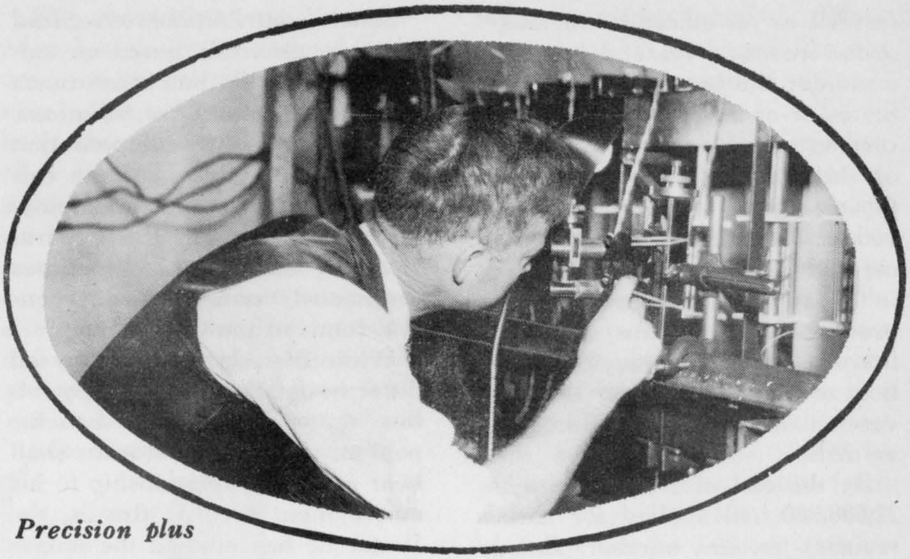
Perforating machines make for speed and accuracy

Setting Standards

EVERYTHING changes except the unchanging law of change, according to an ancient Greek philosopher. However, we must have precise measures and definite standards to record these changes. The growth of commerce and the refinements of civilization depend on the exact work of the Bureau of Standards, which is a national clearing house for scientific research on measurements.

The thousand and one measures of industry and science are based on actual national standards. As the home of the yard, pound, candle, ohm, volt, watt and other measures, the National Bureau of Standards must make and keep these standards accurately in advance of immediate needs.

It must devise methods—exact, convenient, efficient—by which local or industrial standards may be compared by the Bureau and the accuracy certified. Basic standards for measures, kept at the Bureau, are made available through such comparisons.



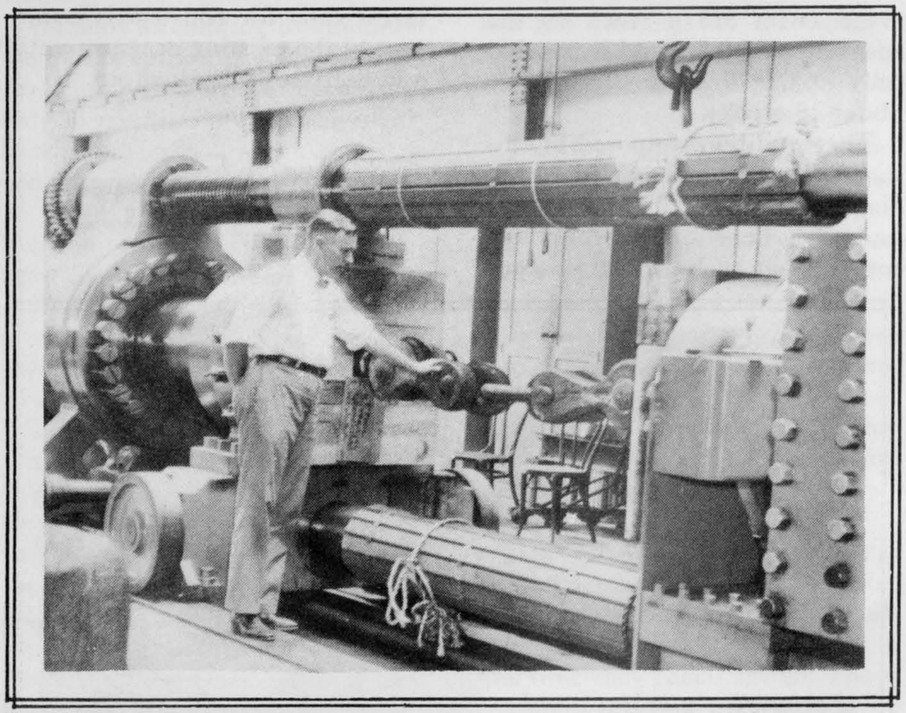
Precision plus

The National Bureau of Standards is, in brief, a national agency for standardization and industrial research. Its conclusions are not mandatory, but its findings are generally accepted by all civilized countries. Naturally this gives the Bureau great responsibility for improving all that affects the measured control of industry and the utilization upon which modern efficiency and progress depend.

A unit of the United States Department of Commerce, the National Bureau of Standards was established by act of Congress March 3, 1901, to continue the duties of the old office of Standard Weights and Measures of the Coast and Geodetic Survey. It is charged with the development, construction, custody and maintenance of reference and working standards and their intercomparison, improvement and application in science, engineering, industry and commerce.

The original Bureau staff numbered 14, with laboratories housed in temporary quarters near the United States Capitol Building. Of the present regular staff of 700 employees, two-thirds are scientifically and technically trained. In addition to the regular staff, there are at the Bureau a number of research associates, supported by industrial groups to work on research problems of mutual interest to the Bureau and the industry concerned. Results of this work are public property.

There is a Works Progress Administration project at the National Bureau of Standards, which



Heavy cast steel chain, such as are used on ships' anchors, are literally pulled apart by this powerful Bureau of Standard test apparatus in its year of operation has become so important that all Federal housing agencies are strongly urging its continuance on a permanent basis.

The project, worked by 30 technically trained men and 10 clerks, concerns itself with investigations of the permanency of building materials used in low-cost housing. The laboratory findings of the architects, chemists and metallurgists are printed and distributed.

Briefly, the low-cost housing program calls for testing and durability of masonry; plaster, stucco and wallboard; floor coverings and finishes; interior partitions; roofing materials; thermal insulating materials; plumbing pipes and joints; and metals used in dwelling construction.

Through the medium of the Bureau of Standards Technical News Bulletin, the work of this housing plan is known in scientific centers throughout the world.

Every day the National Bureau of Standards at Washington is flooded with letters of endorsement, requests for more mimeographed copies of technical findings and petitions for additional information.

Here, indeed, is one of the best of all WPA projects. Not only has it proven a definite asset to the National Bureau of Standards but it is known and applauded throughout the world. What seems to be more important, the WPA workers are satisfied with the organization, and not one member of the original staff was replaced or discharged before the completion of his work.

As organized at present the Bureau falls into the three following groups: Research and testing; commercial standardization; and administrative work.

The Bureau's services are available to the Federal, State and Municipal Governments. Work other than that for these Governments is undertaken only when it will benefit the Nation as a whole.

Since practically everything we make, buy, sell or use is measured, everyone is concerned with the Bureau's work. The links with all who aid or gain by its work are as interesting and varied as those of the diplomatic service.

Most direct is the Bureau's contact with the expert groups who apply its discoveries, standards, specifications and tests. These experts write or visit the Bureau in great numbers, bringing their problems and suggestions.

More systematic, however, are the Bureau's relations with the national engineering, industrial and scientific societies. Bureau members belong to these societies, serving on committees which keep in intimate touch with the Bureau's work and advise on its programs of research.

Since the individual is the ultimate beneficiary of all its achievements, every citizen benefits either directly or indirectly by the work of the National Bureau of Standards. In return for this manifold service, each American pays less than two cents a year.

Air view of the National Bureau of Standards

Studying the Soil from the Skies

SOIL Conservation Service photographers are "up in the air" these days. They have to be, for that's where they do their best work — anywhere from two to four miles above old Mother Earth, who is having her picture taken in a big way.

Keen-eyed birdmen, flying under contract with the Service, have almost completed one phase of one of the largest programs of aerial survey mapping ever attempted in the history of man, covering 362,000 square miles—or more than 12 per cent of the entire area of the United States.

These cameramen, exponents of a new and highly technical science, have photographed areas in 44 states. The resulting pictures are used as base maps upon which the topography of the land, the kind of soil, and the extent of soil erosion are shown. The completed maps are given to soil conservation experts in the field where they are used as a guide and basis for all soil erosion control operations.

Faced with an ever-increasing menace to agriculture, the Government in 1933 took steps to control soil erosion. However, experiments disclosed that the preparation of detailed maps by ground survey parties required long periods of time, extending in some cases over a period of years, and that when completed, such maps could not show as satisfactorily as aerial work the entire picture necessary for effective control.

With WPA assistance, therefore, Service officials resorted to photographs taken from airplanes, for their base maps. The planes have been flying at altitudes ranging from 13,000 to 23,000 feet.

Aerial base photographs, it was found, could be made at a cost considerably lower than adequate base maps prepared by ground surveys, while the speed with which maps could be prepared, convinced conservation experts of the value of such a method of operation.

Knowledge of the conditions of erosion and their relationships to degree of slope, kind of soil, and present land use is essential to the development of soil conservation plans.

Charged with obtaining such information, the Section of Conservation Surveys found few trained men available for this comparatively new work. Consequently, it started a course in surveying erosion; giving intensive training in the mapping of erosion, soil and slope, to college graduates with special knowledge of soils and geology.

The results of the combined aerial surveys and subsequent ground work are used by the soil conservationist on each project as the basis for making cooperative agreements with the farmers, and by the technical staff in determining the nature of the land treatment plan to be applied to each cooperating farm.

The treatment plan includes recommendations as to the cropping system, crop rotation and the proper use for lands falling within each class of erosion and slope. The classes of land to be taken out of cultivation and those to be kept in close-growing crops are indicated and variations in strips for strip cropping are suggested. These recommendations are general in character and are modified by the technical staff according to individual needs, as shown by a detailed erosion map of each cooperating farm.

Within the Section of Conservation Surveys are the separate units of photogrammetry and drafting. The former is charged with the responsibility of preparing accurate planimetric base maps of all demonstration projects and watershed areas as well as furnishing mosaic maps of the projects where large scale planimetric maps are not required. As detailed soil erosion maps are completed on the various surveyed areas, copies of the maps are sent to the Section of Conservation Surveys, where they are reproduced on the accurate planimetric quadrangles and the areas of each condition shown on the map are determined by planimeter measurements.

Today aerial survey maps have been completed showing in detail all lakes, rivers, mountains, farms, land use and erosion problems on 155 of the 156 demonstration projects being conducted by the Soil Conservation Service. More than 200,000 individual aerial photographs have been assembled into detailed maps by the photogrammetric staff in Washington.

The preparation of maps from thousands of aerial photographs, known as photogrammetry, resulted in the development of a comparatively new science, and the actual work of taking the photographs has resulted in a new industry that is rapidly assuming proportions of national significance.

A small group of men who had previous experience in the assembly of aerial photographs in other governmental departments were drafted by the Service for its photogrammetric work. Highly trained personnel from leading engineering schools was obtained, new equipment was invented and perfected when necessary, commercial aviation companies spent thousands of dollars in research work and on the perfection of better photographic equipment, until today a new science has been developed.

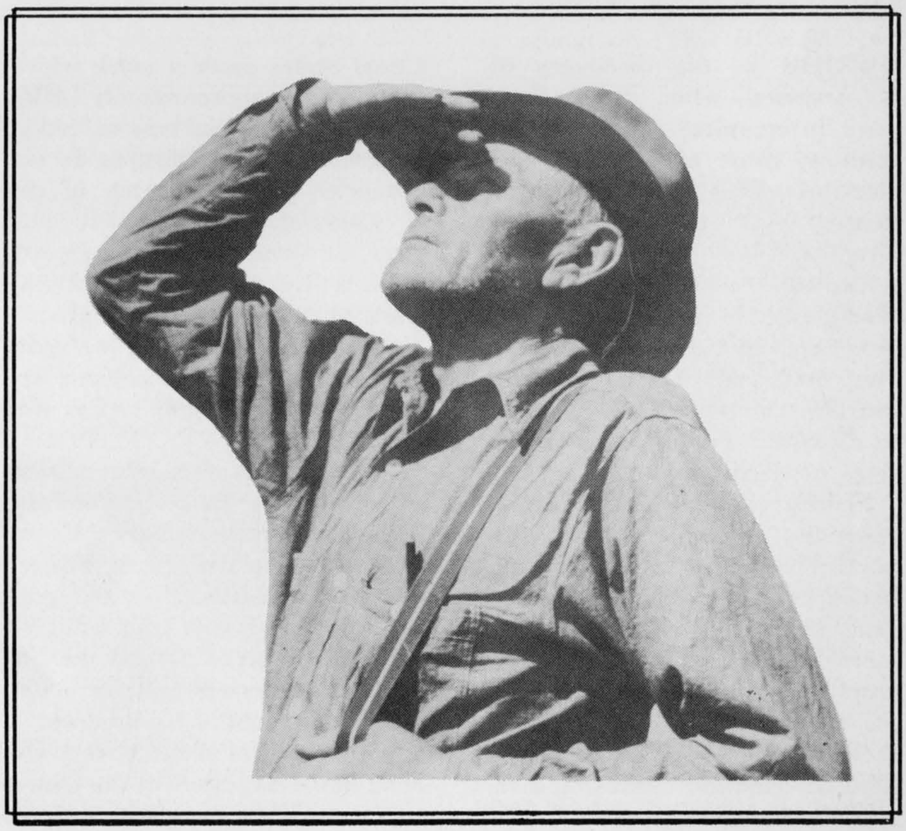
Engineers realized that a photograph taken from an airplane presented a true picture only of the point directly beneath the lens of the camera and as the picture extended away from that point, distortion became apparent. Rigid specifications relative to the exact lines of flight and overlap of the pictures were written into all contracts. Control points were accurately surveyed from the ground. By use of these control points and new equipment designed especially for the purpose of removing distortion, it has been possible to produce a finished planimetric map that meets all necessary standards of accuracy.

All available aerial surveys that had been prepared by the Army and the Navy, the Coast and Geodetic Survey, Forest Service and the Geological Survey were utilized, while 14 commercial aviation companies entered into contracts to furnish photographs. As a result, the Soil Conservation Service today has what is believed to be the largest and most accurate collection of aerial survey maps in the United States.

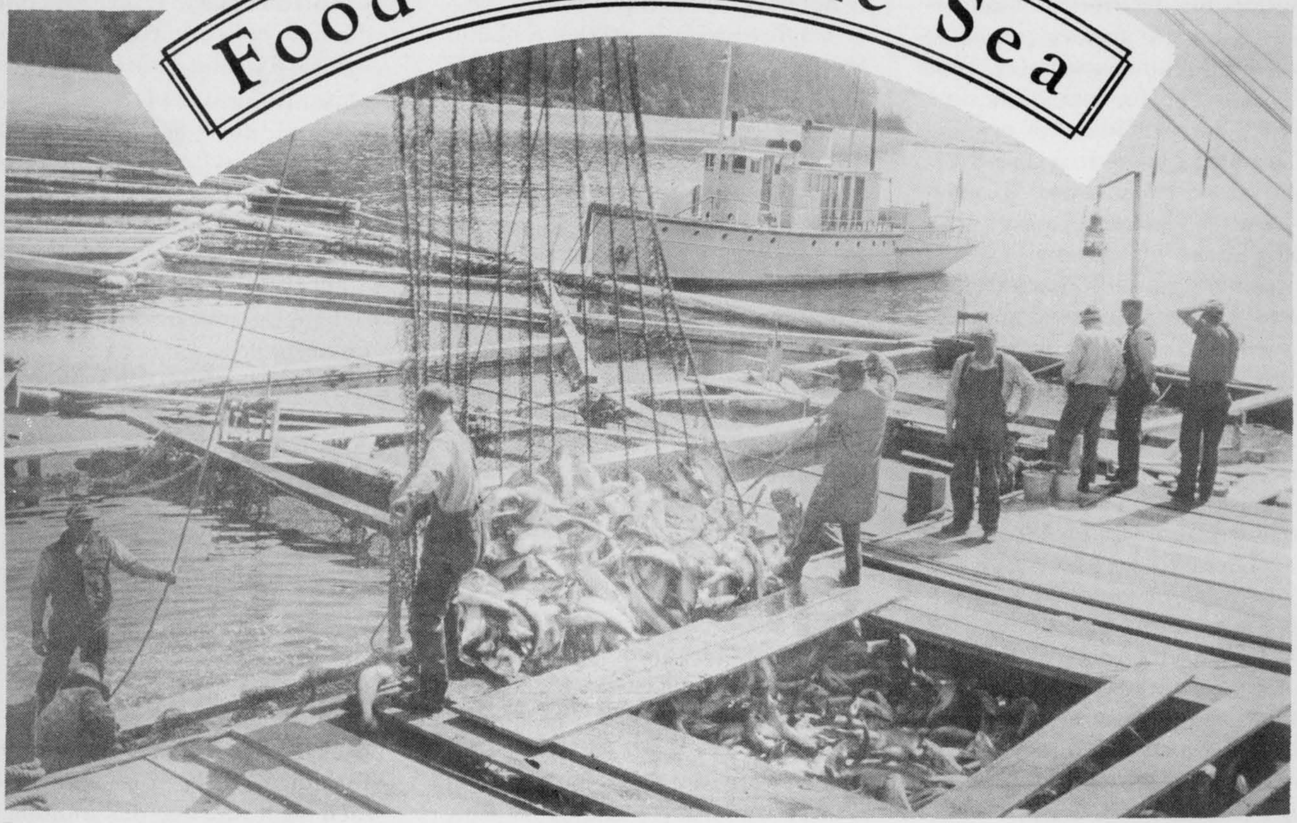
According to H. H. Bennett, chief of the Soil Conservation Service, detailed erosion maps based upon aerial photography are indispensable in the program of soil- and water-conservation. Their widespread use by the Service, he points out, has been one of the important factors in the great advances made along conservation lines within the past four years.

So apparent is the value of the aerial survey program, he added, that many state and local agencies are now actively interested in completing the aerial surveys of their respective states.

He also pointed out that numerous other governmental agencies are now using these aerial maps as a basis for field operations along various lines.



Food From The Sea



PRIOR to the discovery of America, when the Indians were in complete control of the country, game of all kind was plentiful. This same condition existed when the Pilgrims arrived off Plymouth in 1620 after a hazardous crossing of the sea. However, as the United States developed in extent and population many of the natural resources which at one time were so abundant, gradually reached a stage of depletion.

Fishing, one of these natural resources, has long been an important industry in the United States, as well as a delightful pastime for sportsmen. The commercial fishing industry annually employs upward of 200,000 people today. In 1933, 64,462 fishermen in the New England States, Middle Atlantic States, Chesapeake Bay States and Pacific Coast States made a catch which amounted to approximately 1,802,231,000 pounds and was valued at $37,346,000. These figures do not comprise the total catch of the commercial fishermen for that year, however. With the growth of this industry, and with the number of men, women, and children engaged in fishing for sport always increasing, it became apparent that the supply of fish was diminishing.

In 1871, through a joint resolution passed by the Senate and the House of Representatives, the United States Bureau of Fisheries was established for the purpose of conserving and utilizing aquatic resources. Today the Bureau of Fisheries operates under the Department of Commerce.

The activities of the Bureau extend into every State of the Union and into all the possessions of the United States. Close cooperation is maintained with State and educational institutions and various Federal agencies for the purpose of conducting fishery investigations. The conservation of whales, investigation of pond-fish culture, trout culture, fish nutrition, fish diseases, stream surveys, and pollution of waters all come under this Bureau. Also commercial fishery investigations are carried on regarding mackerel, haddock, the fish of the Middle Atlantic States, shrimp in the South Atlantic and Gulf States, Pacific Coast fisheries, and shell fisheries.

Protection of the Alaska fur-seal, blue fox herds of the Pribilof Islands, sea otters, sea lions, walruses, and the administration of fishing laws and regulations, is conducted by the Alaska Fisheries Service. The propagation and distribution of food and game fish and marketing investigations also are conducted to ascertain the per capita consumption of fish. Fresh and frozen packaged fishery products, cured products, canned products, and by-products are studied.

Every detail that enters into the actual taking of fish is carefully analyzed. Dams often obstruct the course of migrating fish. Means must be devised to prevent this obstruction. Dams often change a cold water stream into a warm lake which after the change would be suitable for bass but not for trout. By constant observation and study, the Bureau meets these conditions as they arise.

The Bureau is organized into divisions which gather facts and information for the purpose of carrying out conservation measures. Under the Division of Scientific Inquiry, studies of fish, shellfish, and practically all aquatic organisms are conducted. A complete knowledge of the habits, surroundings, breeding qualities, and natural enemies of fish is essential in conservation work. Nets and fishing gear of commercial fishermen are studied in order that the equipment can be improved upon so that young fish, which can not be utilized, will not be destroyed.

Laboratories where intensive scientific studies are conducted are located on each coast. One is located at Woods Hole, Mass., another at Beaufort, N. C., and a third at Seattle, Wash. Field parties in various parts of the country are continually searching for facts pertaining to the abundance of fish life in interior waters.

The Division of Fish Culture is concerned with the hatcheries, where baby fish are raised to be planted in the ocean and interior waters as the occasion demands. There are about 80 of these establishments which are capable of producing an annual output of more than 7,000,000,000 young fish and eggs. In 1936 the output of young fish and eggs amounted to approximately 8,171,200,570. The size for distribution varies. Shad are distributed when newly hatched whereas trout are distributed when they have reached legal-size.

Through the efforts of the first two divisions an adequate stock of fish is sought. Then the Division of Fishery Industries takes up its duties which are divided into three classifications: technological, marketing and statistical investigations. The data collected by this division proves to be of great economic value to the fish industry and it is very helpful to the fishery biologist for conservation purposes.

The fur-seal herd in the North Pacific Ocean at one time reached a sad state of depletion but under the supervision and control of the Alaska Division of the Bureau of Fisheries, and with the able assistance of the United States Coast Guard, it was built up to the point where it contained over 1,000,000 animals.

Supervising the annual take of sealskins for commercial purposes is one of the most important duties of the fur-seal service. Each year during the months of June and July the killing of seals is permitted. This is limited as

Government protected seal herd in Pribilof Islands.

far as possible to three-year-old male seals. About 50,000 are killed each year. Under the provision of the international treaty for the protection of the fur-seals, the Governments of Canada and Japan are entitled to 15 per cent of the sealskins taken at the Pribilof Islands.

The Pribilof Island fur-seal herd in 1936 contained 1,689,743 animals. The number of skins taken from these islands in 1936 was 52,446. On July 1, 1934, regulations were issued which permitted certain limited killing of walruses, and sea lions in Alaska under specified conditions, but prohibited the killing of sea otters at any time.

The unit which looks after the interests of the angler and the sport fisherman is known as the Angler's Division. It enforces the Federal law that affects the interstate transportation of black bass, one of the most popular of the 15 species of game fish. Much information is acquired and circulated by this division which is beneficial in the conservation of sport fish.

The following item regarding rescue operations pertaining to fish appears in the annual report of the Secretary of Commerce for 1936:

"The Upper Mississippi Wild Life and Fish Refuge was again the scene of the activities of seining crews salvaging stranded fish from landlocked pools stretching several hundred miles along the river. While the entire territory included in the Refuge could not be fully covered by the crews, a total of 43,500,000 fish was saved from the sure death of receding waters and transferred to the main river or distributed to other waters. The latter disposal accounted for only a small fraction of the total number handled. Slightly over 850,000 were utilized for the filling of applications away from the river."

Beaufort Station, on Pivers Island, N. C., is ideally located to carry on studies of aquatic animals and plants that live in the salt water of the ocean, the salt and brackish waters that border the ocean, and those that inhabit the fresh water streams inland. It is a known fact that there are 291 species of fish, 153 species of decapod crustaceans—crabs, crayfish, shrimp, etc.—216 species of mollusks, and 132 forms of marine algae or seaweed in the almost immediate vicinity of the laboratory. Here, this vast quantity of aquatic life can be studied in its natural environment.

The station has a laboratory, a boathouse, a carpenter shop, mess house and kitchen, pump house, directors' residence, and a terrapin-rearing house. The Sandpiper, a 46-foot, two cabin cruiser, is used for hauling in heavy nets. Three launches and 17 rowboats are used in making collections and for transportation purposes.

The terrapin - rearing house, capable of housing 30,000 young terrapins, is used for conducting studies pertaining to these animals. Experiments with them have resulted in the knowledge that they can be hatched and grown to maturity in captivity.

At present there are about a dozen projects under way in various parts of the country where WPA workers are assisting in the construction and improvement of hatcheries, construction of ponds, general improvement to grounds and the remodelling of shops and garages. The majority of the workers are drawn directly from relief rolls.

A project employing WPA workers is being conducted near Walhalla, N. C., in the Sumter National Forest where a fish hatchery is being completed. Upon completion this hatchery will be capable of hatching 1,500,000 trout and turning out about half that number of fingerlings. Other projects are under way in Texas, Wisconsin, Louisiana, South Dakota, Washington and Indiana. Consequently, it may be said that WPA workers have helped and are helping the Bureau of Fisheries in its herculean task of conserving the fisheries of the United States.

Digging Into the Past

Archeology Unearths The Prehistoric America

DELVING into the mysteries of prehistoric life — back into the days when elephants, camels, the giant ground sloth, musk-ox and mastodons were native here—WPA workers have given invaluable assistance to the Smithsonian Institution in piercing the fog that hides the secrets of early Indian cultures in America.

Anthropology — the science of man—has been advanced by at least 10 years through efforts of workers operating under Federal emergency funds, under supervision of Smithsonian experts.

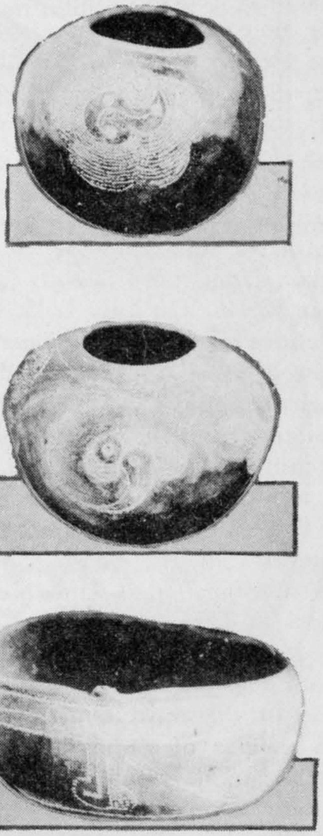
Conducting excavations in various parts of the country, hundreds of victims of the recent depression were given gainful employment that served a twofold purpose: The advancement of science and alleviation of unemployment.

Comparatively little is known of the origin of the American Indians. Of various theories advanced, the one most widely accepted is that they all belong to the same parent stock—the Mongoloid. Their migration from Asia across Bering Straits to Alaska and their dispersal throughout North and South America, with their numerous distinct civilizations, form one of the most fascinating chapters of prehistoric America.

Through the science of archaeology—the study of prehistory—it is hoped to reconstruct living history; to remove the speculation from those peoples who have contributed to the present-day civilizations.

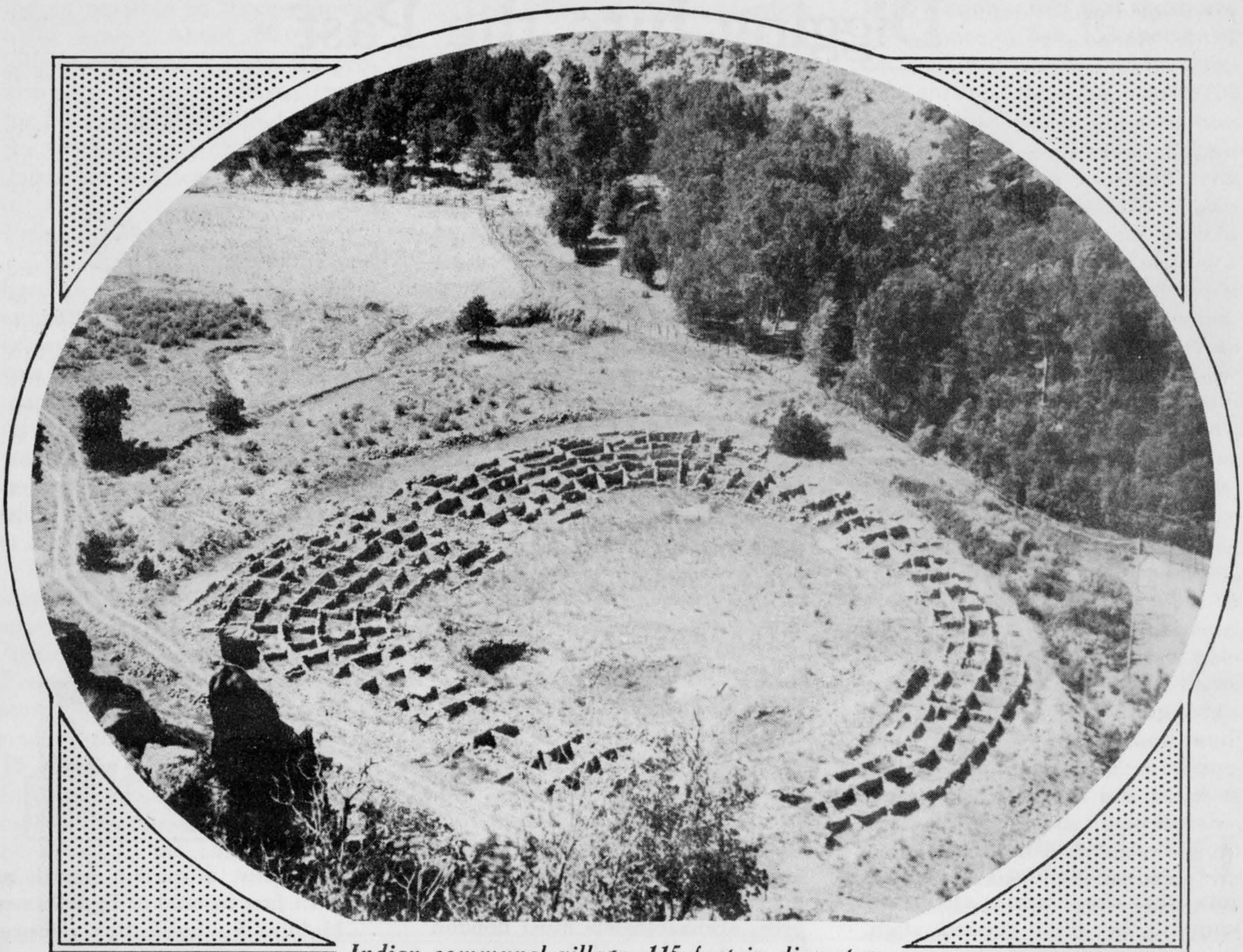
Handicapped in piecing together the story of these early people who left no written records, archaeologists must depend on such meager information as can be disclosed by excavations of habitation and burial mounds, tracing cultures and fixing dates through such scant information as is revealed by stratification, or by the newly discovered method of fixing time by tree rings.

Archaeology and anthropology, however, will not reveal the mysteries of early life in a year or two. They are subjects too involved to permit of overnight solution. They are not local problems, nor yet problems limited to the geographical boundaries of the United States. Rather they intrigue scientists of the whole universe; with each country fitting definitely into the gigantic picture of the prehistoric world. When definite links between countries are uncovered, science can accurately paint a mosaic based on known fact instead of hypotheses.



Helping to paint this picture, the Federal Government assigned hundreds of men on various excavations in Georgia, Florida, North Carolina, Tennessee and California. It was not mere pick and shovel work. Archaeological sites in the United States are very limited and once a site has been carelessly excavated its value is totally destroyed. Forming the very essence of American history, such ancient ruins are all that remain to enable future generations to trace out the original settlement of the New World and the manner in which its individual native civilizations originated. Mounds, cliff-dwellings, pueblos, the fortified villages of the upper Missouri are truly American.

Excavation of these mounds near Macon, Brunswick and Columbus, Ga., revealed ceremonial



Indian communal village, 115 feet in diameter, in the Canyon del Rito de los Fryoles

houses, village sites, remnants of corn fields, rectangular and square houses. One, on the Macon plateau, revealed at least five successive levels of construction. Beneath the base of this mound was a human skeleton, covered with thousands of shell and bone beads. Under a small mound nearby was uncovered the entire floor of a still earlier ceremonial house or temple. The floor was of hard clay, polished by thousands of moccasined feet. Around the circular wall was a bench on which 50 individual seats had been modeled from clay. Opposite the entrance, facing southeast, was the modeled head and body of a great bird, probably an eagle, raised above the encircling seats, apparently forming a great altar.

Details of construction suggest similar devices carved on pottery and shell from the great aboriginal mound site near Moundville, Ala.

Excavations in Florida were designed to get a cross-section of aboriginal cultures. In the northern half of the State a number of mounds yielded many skeletons and artifacts which apparently pertained to the Surruque Indians, who occupied that part of Florida when it was discovered by the Spaniards. Previously Surruque history consisted solely of a brief catalog of disasters ending with extermination of the tribe about 100 years after its first contact with Europeans.

At Ormond Beach another important excavation disclosed a mound containing scattered burials. Below this were two concentric circles of extended burials with apparently related village site materials. Much light was thrown on the civilization and growth of the Mayaca Indians through discovery of pottery vessels, pipes, stone ornaments and carved shells.

A different archaeological area was unearthed in central Florida, once occupied by the Calusas. Excavations here revealed elaborately carved wooden specimens, which proved without doubt their prehistoric age. Mounds on the Little Manatee river, similar in external appearance, proved, however, to contain different burial and ceramic types. In one all burials were cremated; others were flexed or were merely bundles of exposed bones. The crematory mound also showed the complete floor plan of a mortuary temple, the first reported from that area. Some of these mounds date from post-Spanish times, while others are prehistoric, adding to the complexities of history which only detailed study of the data can unravel.

Near Murphy, N. C., excavation of one mound revealed three cultural levels. The surface yielded intrusive burials, possibly of Cherokee origin, with associated European objects. Another level was the mound horizon itself, while the third was the village-site deposit beneath the mound. Smithsonian workers believe that study of the distribution of the stamped and incised pottery and red and black painted ware from the different structures may indicate occupation by different ethnic groups at different times. Here, as at other sites, the occurrence of an historic dated period of occupation permits the archaeologist to proceed logically from the known to the unknown in reading the record.

Important finds were made in the Shiloh National Park, scene of one of the major battles of the Civil War. Very little is still known of the general region from an archaeological standpoint, hence discoveries there mark the beginning of a more complete understanding of an important culture area.

Uncovering of graves in California marked by juniper posts has aided science materially, inasmuch as experts will be able to fix a date of occupation of the early historic village of Tulamniu through study of the growth of rings on those posts.

Despite the fact that such work is still in its infancy, recent years have opened new vistas in American prehistory. In New Mexico, Nevada, Colorado, and Nebraska and elsewhere, human artifacts have been found in association with fossil bison, the giant ground sloth and the mammoth. Such finds indicate that the ancestors of the American Indian pushed into the North American continent at a very early period while the great Pleistocene ice sheet was still retreating to the north. Some competent students favor the theory that man arrived here even earlier, during certain interglacial periods.

Smithsonian experts point out, however, that the present actual status of archaeological conservation in the United States is deplorable. The Scandinavian countries and France, Italy, Mexico and many other nations have nationalized their prehistoric remains in the belief that the objects themselves and the history they represent belong to the people as a whole and not to acquisitive individuals and curio dealers. No effort of this kind has as yet been made in this country.

From motives of mere curiosity or greed, dealers and relic hunters in practically every State are steadily destroying an irreplaceable heritage. The Antiquities Act of 1906 forbids unauthorized archaeological excavation on public lands, but the law is difficult to enforce. Consequently, this annihilation of our "readable past" which, due to the great popularity of "relic hunting," is steadily growing worse, indicates the need for a carefully planned archaeological program before it is too late.

Archeologist's helper unearthing prehistoric bones

Your Guide to Washington

One of the many striking illustrations of "Washington, City and Capital"

THE Federal Writers' Project of the Works Progress Administration has just published its key volume, "Washington, City and Capital," the first of a vast library of informative documents.

This book compiled by field workers, research men and preliminary writers, drawn from the so-called White Collar Projects, is a comprehensive, yet intimate picture of the Nation's Capital both in its broad scope and in its precise detail. It has been painstakingly checked and cross-checked against the best available sources of information and the articles submitted to experts in each particular field for confirmation.

The compilation of such an encyclopedic volume on a city so historic in its origin and growth and so intricate in its present operation has been accomplished in a matter of months, no mean achievement. The work of gathering and checking this material and the preliminary writing of it has been in the hands of relief project workers of the District of Columbia and the final preparation for publication had been entrusted to a group of experts and editors working at usual government wages.

These two groups have achieved an outstanding piece of work both for the tremendous mass of vital material and for the accurate and occasionally amusing presentation of it. This Guide of our Captal City becomes therefore far more than the stereotyped commercial handbook. Because of its accuracy, it will probably long remain a standard, a future source book, and for its presentation a model well-deserving emulation.

Here is traced the peculiar history of the District's origin, from the time when its early political mentors bargained a bank for a sovereignty and financed it with a lottery, through the evacuation and burning of our national city, the war hysteria, the daring and unscrupulous political machinations of Alexander Shepherd until it grew to the present magnificent city. Nor is this a dull recital of fact. Rather it is a lively account of a vital and growing city, representative of a lusty young nation. It is spiced with anecdote and startling disclosure, and vivid with quotations from those lively critics, from Mrs. Trollope to Mark Twain and Horace Greeley.

These excerpts include Mark Twain's suggestion that they dilute the mud of Pennsylvania Avenue slightly and use it as a canal, and the New York editor's biting commentary to the postal clerks, when he said, "In Washington the mud is deep, the rents are high, the food is execrable and the morals deplorable: Go West young man, Go West."

There has been no artificial awe of the mistakes in architecture and art of the city. The volume does not fail to point out the incredibly bad as well as praise the surpassingly beautiful. Thus lightened with comment, it recognizes the stodginess and mediocrity of some of our "fallen idols," so that no concession has been made with respect to the Federal city merely because it is the Federal city.

Historical homes are fully covered and the achievements and follies of their owners accurately portrayed. The more grandiose mansions of the wealthy which have congregated in Washington are discussed along with the eccentricities and accomplishments of their owners. Those older outlying towns that fed the new city with their life blood—Alexandria, Georgetown and Bladensburg are fully treated. Here again the anecdote lightens what might have been dull reading. Martha Washington Custis Peters' petticoat comes in for attention. Peggy Eaton, that scandalous barmaid who disrupted an administration, trips gayly through the pages.

The furies of the diminutive Yterbide, who had to stand on a chair to fight his duels, the bloody barbarous challenge of Mason and McCarty, the petty bickering of political parties over the Washington Monument, the murder of Philip Key, and the thrilling episode of his nephew's self-sacrificing effort to save Dr. Bean, and the consequent writing of the Star Spangled Banner; all these are but hints in the numerous tales which are skillfully woven into the fabric of the book.

In this last the book has made a distinct contribution, since for the first time is collected the official information on the intricate and detailed operation of our Federal Government, including the many New Deal organizations. These explanations will bring to the American public a better understanding of the involved interrelation and stupendous scope of government activities.

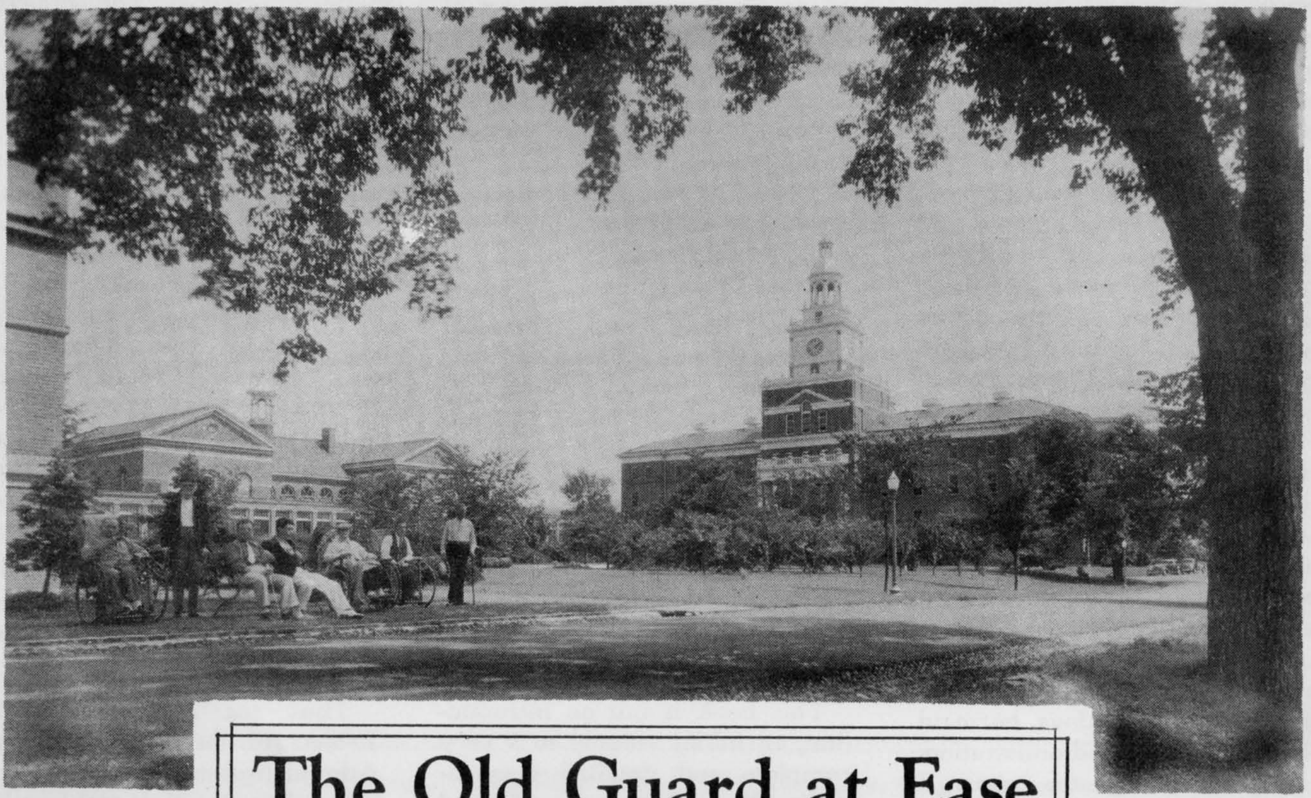
This book is but an introduction, an initial volume to a very complete and detailed encyclopedic library on the United States. The succeeding issues will run to 56 volumes, one on each State, New York City and Puerto Rico, and six regional volumes which will cover the United States as a whole. The collection and compilation of this vast bulk of material has been accomplished in an incredibly short time.

The millions of words presented in this library represent months of research, detailed and accurate, of other months of checking and rechecking by voluntary experts, and final editing by a staff of representative editors from all over the country. Preparation by States has permitted a diversity of treatments, each localized to the community, and thereby expressing the feeling of the community.

These volumes then become each a separate and distinct picture of the State from which it comes.

Thus the Federal Writers' Project of the Works Progress Administration has accomplished more than the giving of employment to men and women, to whom encouragement was the breath of life, but it has contributed richly to the living literature of today.

South portico of the White House



The Old Guard at Ease

MAINTENANCE costs of the United States Soldiers' Home in Washington total high in the millions, yet an original allotment of only $54,319 represents practically every penny that taxpayers have contributed to this unique institution.

The Home really owes its existence to the victories of the United States in the Mexican War, and the pioneer efforts of Lieut. Gen. Winfield Scott. Scott had long sought a haven of retreat for those who had served their nation under arms, but prior to 1848 all efforts to secure funds for this purpose had been in vain.

In that year the General took matters in his own hands and forwarded to the Secretary of War a draft for $100,000, a part of the tribute he had levied on the City of Mexico. In indorsing the draft he stipulated that "the Bank of America will place the within amount to the credit of the Army Asylum, subject to the order of Congress."

This was three years before the "asylum" was authorized, but Scott's optimism was vindicated when the Act of March 3, 1851, created the Soldiers' Home, appropriating for its use the $100,000 hitherto mentioned, an additional $18,791 from the same Mexican levy, and $54,319 from the unexpended balance of a Congressional appropriation providing for the return of invalided soldiers of the Mexican War to their homes.

The original purchase of land in Washington was the Riggs estate—256 acres of rolling terrain three miles north of the Capitol. Additional purchases of adjoining tracts brought the total to 500 acres, representing an outlay of $326,354. The same property today would probably bring well into millions on the open market.

To perpetuate the Home fund, Congress decreed that all stoppages of fines adjudged against soldiers by sentence of courtsmartial, and all moneys belonging to the estates of deceased soldiers, unclaimed for three years, should go to the Home.

In addition, a deduction of 25 cents per month from the pay of each enlisted man on the active list was authorized for the upkeep of the Home.

Thus it is evident that with the exception of the initial appropriation (most of which was derived from the spoils of war) provision was made from the first to make the Home and its privileges the exclusive property of the enlisted men of the Regular Army.

At the same time it was provided that the Home should be administered directly by the War Department, its supervision being the charge of the Secretary of War and a group of Army Officers selected solely on their ability.

By 1859, the Soldiers Home Permanent Trust Fund had become large enough to permit the reduction of fees assessed soldiers from 25 cents to twelve and a half cents per month. In 1908 the fees were discontinued altogether. Recently they were renewed, as the fund had been sharply lowered as a result of a phenomenal increase in inmates during the depression, and expenditures for new buildings and equipment.

The peak of the permanent fund was reached in 1925, when it totaled approximately four and a quarter million dollars. On March 1, 1936, it had been reduced to a little more than two and a quarter millions.

The Home was first opened to members in rented quarters in the city on December 24, 1851, before facilities had been provided on the purchased land. The Registry shows that 16 persons were admitted that year, 70 in 1852, 53 in 1853, and 34 in 1854. Within recent years, largely as a result of the depression, admissions grew by leaps and bounds, the present enrollment being 1,450.

The first aim of the Home was to provide comfortable and congenial living conditions, with all necessities for decent and wholesome living. This the Home has done—perhaps beyond the fondest dream of General Scott.

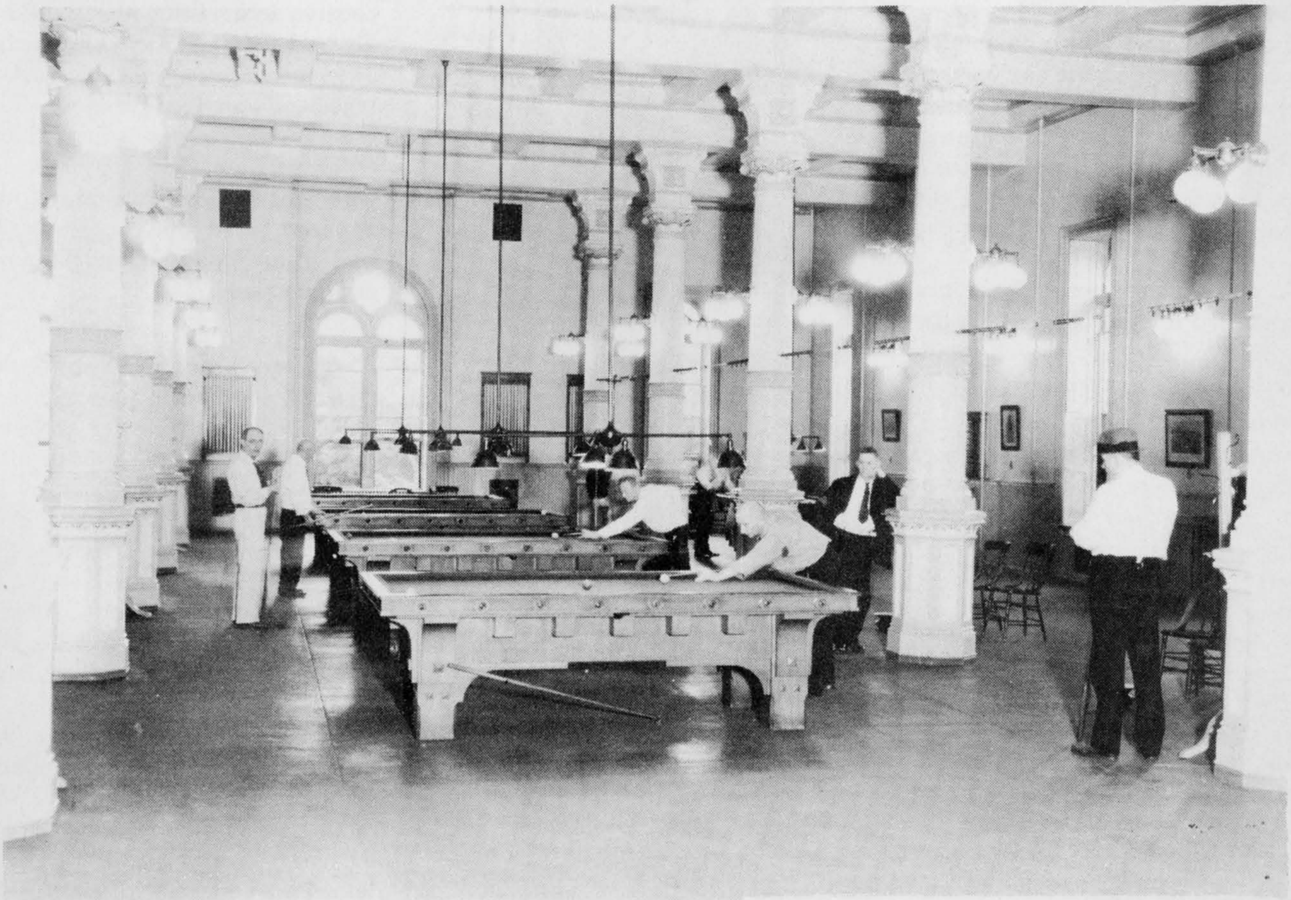
Dormitories are bright and cheerful, each sleeping room having individual beds. Each floor of each dormitory is amply equipped with both bathtubs and showers. Practically no restrictions are placed on individual tastes, and members may arrange and decorate their rooms to suit themselves. Many of them have radios, collections of pictures, floor lamps, etc.

Recreation rooms and an adequate library are maintained. There is a chapel with facilities for both Catholic and Protestant worship.

With respect to clothing, all members financially able to indulge their tastes may outfit themselves as they like. For the benefit of those who cannot supply their own wearing apparel, the Home provides a sufficient quantity of neat, well-made, seasonable clothing, which is cleaned and kept in repair free of charge.

Three meals are served daily to approximately 1,500 persons, and the food is of the finest. Purchases run into thousands of dollars each month, covering practically every item of food on the market.

The Home operates its own public utilities, including an electric power plant, an up-to-date



Billiards is only one of many recreations laundry, in which all institutional and individual washing is done; a cleaning and pressing plant, tailor shop, shoe repair shop, carpenter and machine shop, dairy and poultry farm.

The poultry and dairy farms, which are under the direction of Dr. W. B. McGrath, are of great financial assistance to the institution. At present the Home has 90 pure bred, registered Holstein cows. The entire output of milk is used at the Home. Surplus calves are sold and the proceeds placed in the permanent fund.

The poultry farm has 5,300 layers of a special strain developed by Dr. McGrath. All eggs produced are used at the Home, in the general mess and by the hospital.

In connection with the dairy farm, approximately 175 acres are under cultivation annually, producing all the hay and ensilage required.

Excellent and ample provision has been acquired for the care of the sick and infirm. Tubercular cases are not treated at the Home, but are sent to Fitzsimmons General Hospital in Denver—at the expense of the Home, not the Government.

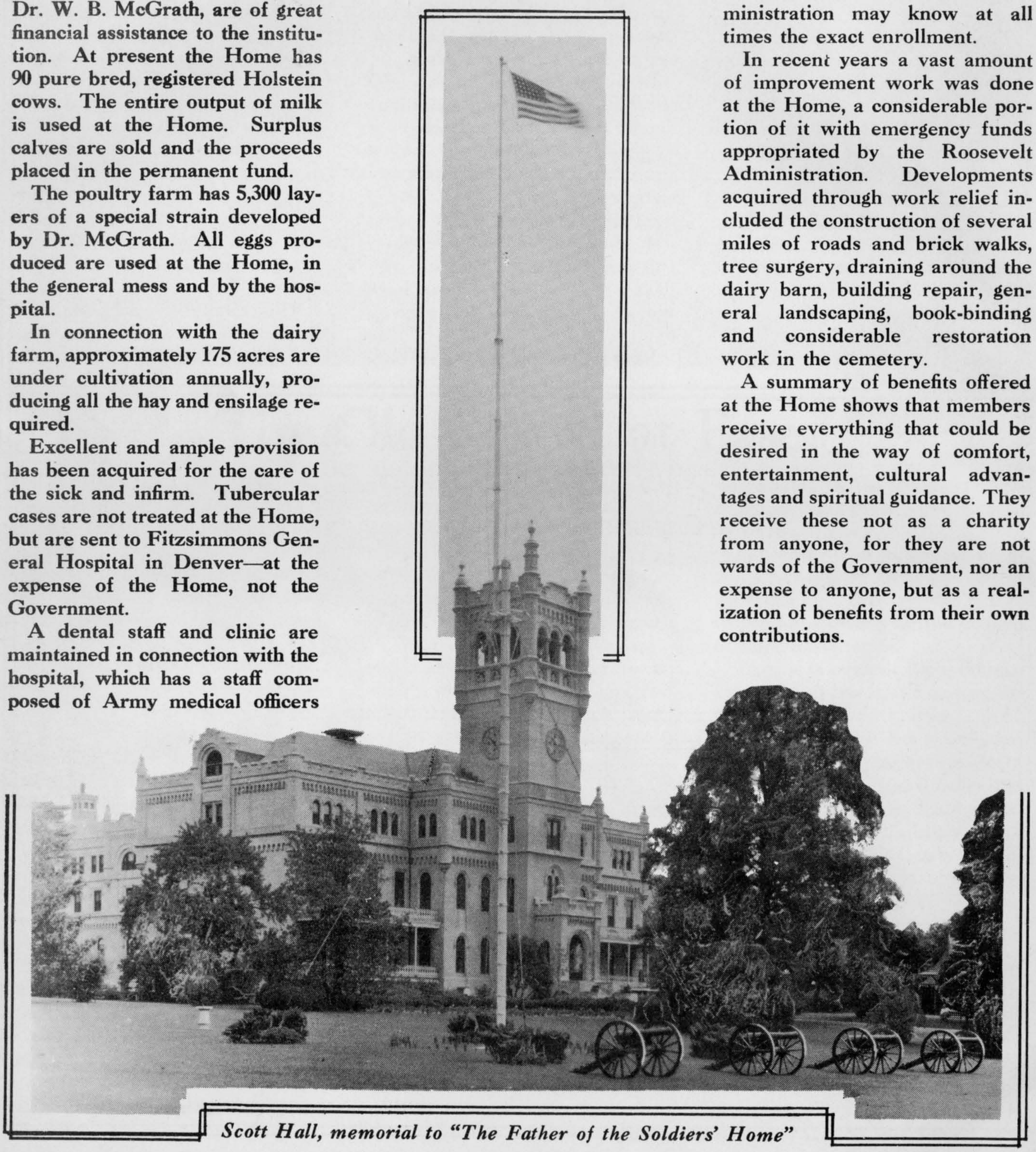
A dental staff and clinic are maintained in connection with the hospital, which has a staff composed of Army medical officers and specially selected civilian technicians.

Realizing that a certain amount of spending money is necessary to the self-respect of every man, the administration supplies "pin money" to members who have no pensions or other incomes.

There are no restrictions whatever in the granting of furloughs and passes from the Home. The granting of permission to leave for certain times is a mere matter of record, in order that the administration may know at all times the exact enrollment.

In recent years a vast amount of improvement work was done at the Home, a considerable portion of it with emergency funds appropriated by the Roosevelt Administration. Developments acquired through work relief included the construction of several miles of roads and brick walks, tree surgery, draining around the dairy barn, building repair, general landscaping, book-binding and considerable restoration work in the cemetery.

A summary of benefits offered at the Home shows that members receive everything that could be desired in the way of comfort, entertainment, cultural advantages and spiritual guidance. They receive these not as a charity from anyone, for they are not wards of the Government, nor an expense to anyone, but as a realization of benefits from their own contributions.



Scott Hall, memorial to "The Father of the Soldiers' Home"

> *WITH malice toward none; with charity for all; with firmness in the right, as God gives us to see the right, let us strive on to finish the work we are in; to bind up the nation's wounds, to care for him who shall have borne the battle, and for his widow and his orphan—to do all which may achieve and cherish a just and lasting peace among ourselves and with all nations.*
>
> ABRAHAM LINCOLN
>
> *Second Inaugural Address, March 4, 1865*

The President Takes Office

FROM the very beginning the American people elected to make the inauguration of their Presidents a traditional festival. The sight of the immortal George Washington disembarking at the foot of Wall Street, New York City, that dim day in April, 1789, so inspired the people that they staged a spontaneous demonstration, which was to evolve into the inaugural parade.

Thomas Jefferson, the first President to take the oath of office in Washington, did not, as a tenacious legend has it, ride on horseback unescorted to the Capitol. Actually Jefferson was met by a company of militia at his rooming house and he walked to the Capitol, about a stone's throw distance.

The first inaugural stand was built for James Monroe in 1817. It was Monroe who revived the custom of holding the ceremonies out of doors, a practice which has been followed ever since, except on occasions when the weather was too stormy.

When Andrew Jackson, "Old Hickory" as he was called, came to Washington in 1829, there followed the greatest demonstration until that time. Previously Presidents had given their inaugural addresses in the Senate Chamber. Jackson, always a man of the people, gave his directly to the crowd from the Capitol's East Portico.

Even when he returned to the White House, the crowd followed him and in its eagerness to see its beloved leader broke window glass and destroyed many costly rugs. Jackson was saved from personal injury when men locked arms between him and an admiring throng which pinned him against the wall in the Reception room.

Every inauguration has followed the same general routine, but there have been a few of those little incidents, human and amusing, so typically American. Lincoln, in 1861, after taking his oath, stopped to kiss each of 34 young ladies, representing the States. Ulysses S. Grant, while reading his address, was seized by the hand by his little daughter Nellie, who escaped from her mother.

As result of a constitutional amendment to end "Lame Duck" Congresses, the inauguration of 1937 takes place in January for the first time. Thus the first term of Franklin D. Roosevelt was automatically reduced by almost two months, while members of Congress can no longer vote after they are defeated.